Ontario

ARGUMENT

ROYAL COMMISSION OF INQUIRY INTO CERTAIN DEATHS AT THE HOSPITAL FOR SICK CHILDREN AND RELATED MATTERS.

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Hearing held
21st floor
180 Dundas Street West
Toronto, Ontario

Scott

The Honourable Mr. Justice S.G.M. Grange	Commissioner
P.S.A. Lamek, Q.C.	Counsel
E.A. Cronk	Associate Counsel
Thomas Millar	Administrator

Transcript of evidence
for

12 JUNE 1984

VOLUME 153

OFFICIAL COURT REPORTERS

Angus, Stonehouse & Co. Ltd.,
14 Carlton Street, 7th Floor,
Toronto, Ontario M5B 1J2

595-1065

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ROYAL COMMISSION OF INQUIRY INTO CERTAIN DEATHS AT THE HOSPITAL FOR SICK CHILDREN AND RELATED MATTERS

Hearing held on the 21st Floor, 180 Dundas Street West, Toronto, Ontario, on Tuesday, the 12th day of June, 1984.

THE HONOURABLE MR. JUSTICE S.G.M. GRANGE - Commissioner

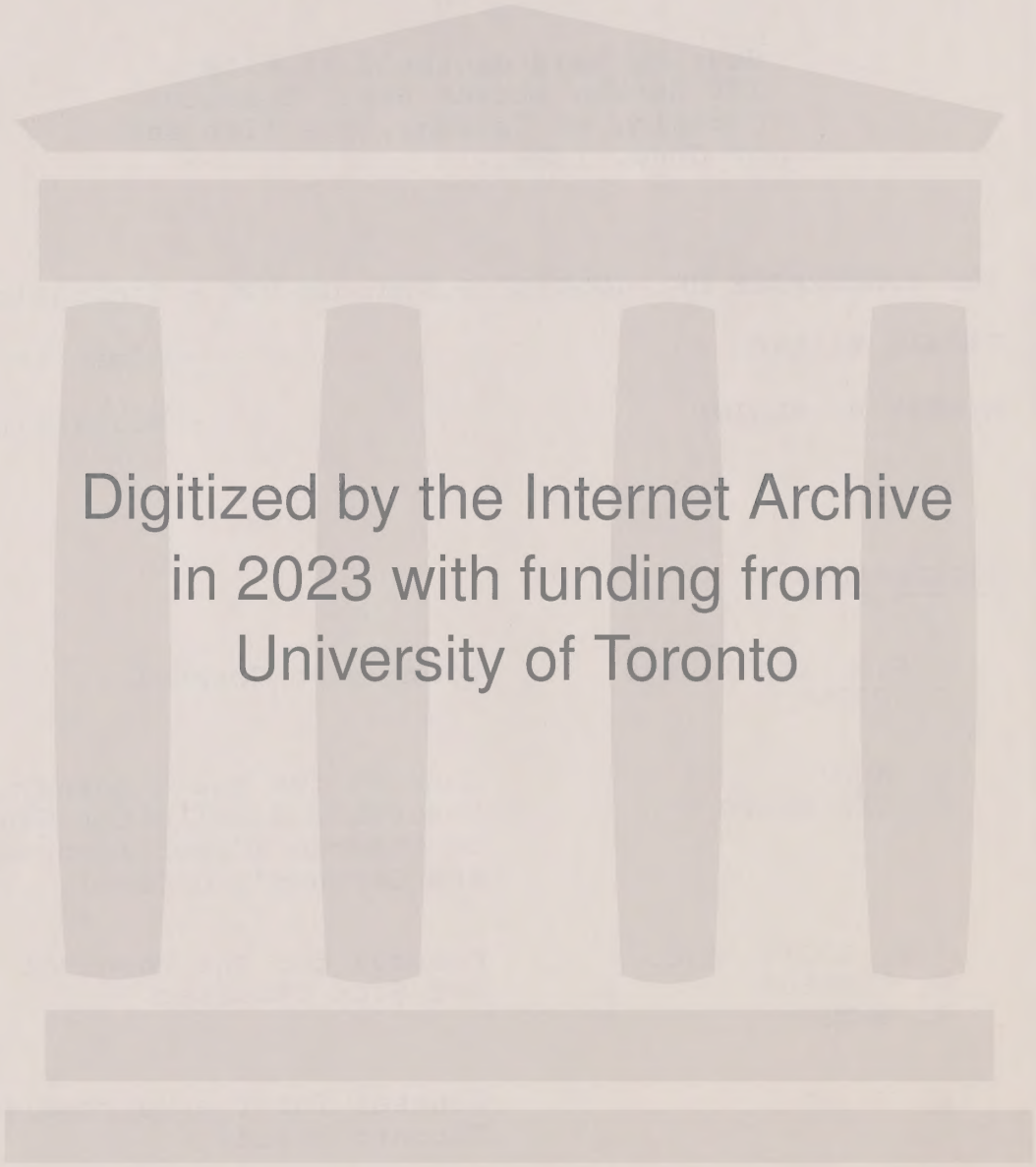
THOMAS MILLAR - Administrator

MURRAY R. ELLIOT - Registrar

APPEARANCES:

P.S.A. LAMEK, Q.C. E. CRONK	Commission Counsel
D. HUNT L. CECCHETTO	Counsel for the Attorney General and Solicitor General of Ontario (Crown Attorneys and Coroner's Office)
I.G. SCOTT, Q.C. M. THOMSON R. BATTY	Counsel for The Hospital for Sick Children
D. YOUNG	Counsel for The Metropolitan Toronto Police
W.N. ORTVED	Counsel for numerous Doctors at The Hospital for Sick Children
F. KITELY	Counsel for the Registered Nurses' Association of Ontario and 35 Registered Nurses at The Hospital for Sick Children

(Cont'd) ..



APPEARANCES (Continued):

D. BROWN	Counsel for Susan Nelles - Nurse
G.R. STRATHY) P. RAE)	Counsel for Phyllis Trayner - Nurse
J.A. OLAH	Counsel for Janet Brownless - R.N.A.
S. LABOW	Counsel for Mr. & Mrs. Gosselin, Mr. & Mrs. Gionas, Mr. & Mrs. Inwood, Mr. & Mrs. Turner, Mr. & Mrs. Lutes, and Mr. & Mrs. Murphy (parents of deceased children)
F.J. SHANAHAN	Counsel for Mr. & Mrs. Dominic Lombardo (parents of deceased child Stephanie Lombardo); and Heather Dawson (mother of deceased child Amber Dawson)
W.W. TOBIAS	Counsel for Mr. & Mrs. Hines (parents of deceased child Jordan Hines)
J. SHINEHOFT	Counsel for Lorie Pacsai and Kevin Garnet (parents of deceased child Kevin Pacsai).

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I N D E X

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---On commencing at 10:00 a.m.

THE COMMISSIONER: Yes, Mr. Lamek.

MR. LAMEK: Thank you, sir.

ARGUMENT BY MR. LAMEK (Cont'd)

I believe I reached the case of Matthew Lutes when we ended yesterday. Matthew Lutes died at the age of one month at 1:34 in the morning on November 17, 1980. He was in Room 418. Members of the Trayner team were on duty.

Baby Lutes had been admitted to the Hospital on November 12th for investigation of congenital heart disease and failure to thrive. His course in the Hospital is set out in the nursing notes. He was on digoxin and diuretics to control his congestive heart failure.

Throughout his stay he had a history of vomiting. That is referred to in the long day and long night nursing notes for November 14 and 15 at pages 49 and then at pages 50 and 51 of the chart, respectively. Also a constant observation over that two day period was that he was experiencing respiratory distress.

On page 52 of the chart there is a note by a physician dated November 16, in which it is noted inter alia that the congestive heart failure

is not being controlled by digoxin and aldactazide and the child required, from time to time, doses of lasix, intramuscularly.

He goes on to record vital signs and so on. He refers to the congestive heart failure and the use of digoxin and lasix plus aldactone.

Reference to the chest X-ray is noted as pulmonary edema observed in the child had worsened since yesterday and that he is tachyapneic, sturnal in-drawing, not looking like a particularly healthy child and obviously congested heart failure problem.

The long day nursing note on November 16, page 53 of the note, Nurse Ganassin notes his respiratory rate was elevated all day with an average rate in the high 70s per minute and he was very restless with feeds and especially 4:30 feed he did not settle as well. His father was called and he flew in to be at the Hospital.

Page 54 is a final nursing note written by Miss Nelles of the long night of November 16 to 17. That records that until midnight the heart rate was regular, his respirations were laboured, he was tolerating full strength formula and being fed by a tube. His colour was greyish, but he settled

well and slept long periods. A rather mixed set of observations on the child.

At midnight there was a rather dramatic turn for the worse. It is noted at 2400 hours the baby vomiting clear mucus and small amounts of bile-tinged mucus. He became diaphoretic and the colour was pale and somewhat dusky skin, clammy.

Apex went up to 160 and respiration became more shallow. Blood pressure, I believe that is 92 over pulse. Thirty minutes past midnight Dr. Ng was notified and then Dr. Costigan appeared. The baby became --

THE COMMISSIONER: Severely.

MR. LAMEK: Sorry?

THE COMMISSIONER: Severely.

MR. LAMEK: Severely -- thank you. -- bradycardic.

CPR was instituted and the code was called. The baby died at 1:30.

On the preceding pages Dr. Costigan's note, Nurse Nelles recorded that he appeared and, indeed, he did. He says, himself, that he wandered in to see Matthew and he records the observations that he made of it. The nurses and doctors were concerned with him because of the diaphoresis,

vomiting and when I was examining him, says Dr. Costigan, his heart stopped.

He goes on to record the attempts that were made to revive the child in the final paragraph: No real response. Had wide complex low heart rate. At times was unresponsive with retallin. Went to fibrillation, to defibrillation. Slow irregular rhythm. 45 minutes after beginning the resuscitative efforts they were ended.

There was no autopsy on this child.

Again, Mr. Commissioner, there was complete agreement among the medical witnesses that the death of this child was consistent with his clinical condition.

Dr. Hastreiter in Volume 81, pages 7520 to 21 gave it as his view that the probability of digoxin toxicity was almost nil and nobody had suggested digoxin involvement in the death of Matthew Lutes. Certainly the toxicological data from the Centre for Forensic Sciences is not suggestive of digoxin toxicity. The results are found in Exhibit 95A, pages 11 to 12. They are all levels recorded in fixed tissues. In heart, left ventricle no digoxin was detected, although there was a low concentration of digoxin like substances. In the

septum no digoxin was detected, although again a small concentration of digoxin-like substances.

In the left atrium apparently no HPLC followed by RIA, but on a simple RIA assay 27 nanograms per gram of digoxin or digoxin-like substances were measured.

In the lung a very low level of digoxin was measured, 5 nanograms per gram.

Clearly, Mr. Commissioner, those data cannot support the suspicion, let alone a finding, that digoxin toxicity played a part in Matthew Lutes' death.

Thus although there was a general agreement that the terminal symptoms manifested by the child were consistent with digoxin intoxication the only other circumstances that can point in that direction in my submission, are what I call the circumstantial evidence, time of death, presence of nursing team and so on.

Pointing in the other direction, away from digoxin intoxication, being involved in the death of this child, is the presence of a clinical explanation for the death that is accepted by all of the medical and pharmacological experts. In all the circumstances, my submission is based on all the

evidence that there can be very little, if any suspicion arising out of the death of Matthew Lutes.

The next case is that of John Onofre. My submission that is a substantially more puzzling case. This was a three week old boy who died at 4:10 in the morning on February 9th, 1980. He had been admitted to the Hospital on November 22nd at one day of age. He was a patient on Ward 4B at the time of his deterioration and death and Mrs. Trayner's team was on duty at that time on Ward 4A.

Baby Onofre had a shunt operation on November 24th, two days after his admission. At admission as appears from the death report, the summary on page 31 of the chart, that at admission he had had an irregular heart rate, post operatively he did quite well, but he continued to have ectopic heart beats. When on January 6th he was noted to have blood in his stools,infection was suspected and, indeed, as it appears from the final autopsy report on page 33 of the chart, specimens taken from the child yesterday yielded cultures which grew E. coli and E. coli septisemia was suspected.

But John Onofre's death, when it occurred, was a surprise, as appears from Dr. Rowe's evidence at Volume 14, pages 2478 to 9.

Other physicians, too, have viewed the death as sudden and unexpected and as is not explainable in terms of his clinical condition and disease state.

Dr. Hastreiter, who gave the child a severity rating of 5 on a scale of 1 to 10 thought John Onofre's cardiac status was relatively stable at the time of his deterioration and, although Dr. Hastreiter recognized that the shunt had been established was a small one he saw no immediate clinical explanation for the death and he did not consider that John Onofre's clinical condition was sufficiently severe to cause the death.

Dr. Rowe's evidence was that although the death was surprising and unexpected when it occurred it was explained at autopsy. The evidence of Dr. Rowe in that regard is found in Volume 14 at pages 2479 to 80 and in Volume 22, 3998 to 4000.

Dr. Freedom, in light of the pathology findings considered infection to have been the cause of the baby's terminal arrhythmia. The final nursing note at page 64 of the chart appears to recite only the events following the time when the baby got into trouble at 3:10 in the morning. I cannot tell you for sure what the baby's course had been in the first half of the shift, the first eight hours of the shift.

We do know from the nursing note that at 3:10 o'clock in the morning the baby's cardiac monitor showed irregular rhythm, slow heart rate, long pauses between the beats. In other words he was bradycardic down to a rate of 88. At that time the baby was asleep when that observation was made. When he was awake the heart rate went up to 100, and then it is rather tersely stated that he went into arrest at 3:19 o'clock.

There is a note, a physician's note by I believe Dr. Lichtman, at the bottom of page 61 of the chart, recording his observation when he was called at 3:20 o'clock. So he was called to come immediately at 3:20 o'clock and the baby was noted to be bradycardic. When he arrived, the doctor arrived, the heart rate was 40 to 100 and variable. The baby was crying, the IV was infusing well and he could feel pulses. The medical resident was called, the arrest occurred at 3:29 o'clock according to the doctor. The arrest team arrived and a junctional rhythm was noted.

Over on to the next page, the baby was intubated, CPR went ahead, drugs were administered. There was apparently a period of fibrillation for which defibrillation took place, the patient didn't

respond and the effort stopped at 4:10 o'clock. The doctor notes the cause or the origin of all this was not obvious. The baby did not appear septic, he had been on ampicillin and gentamicin and no other medications and he wasn't clinically hydrated.

Now Dr. Rowe's evidence was that having seen the autopsy report and having heard from Dr. Freedom about the findings at the gross autopsy, he and his colleagues were satisified that the death was consistent with and resulted from Baby Onofre's clinical condition and disease condition.

The autopsy findings that were considered particularly significant in that regard were those of infection, E.Coli cultures and very small size of the shunt, described at autopsy as 2 millilitres, which the cardiologists believe had produced hypoxia which caused a worsening of the rhythm problems that the baby had earlier manifested. It is likely what Dr. Rowe and his colleagues saw was the preliminary autopsy report and it was that that was the source of the comfort that they took.

The final autopsy report is found at pages 32 to 33 of the chart. The final paragraph on page 33 brings to the events perhaps a large slice, not perhaps, clearly a large slice of hindsight and

and apprehension in light of the other events known to have occurred on the ward. The cardiologist's report:

> " Death in this case was somewhat sudden and unexpected being manifested by sudden onset of bradycardia and cardiac arrest. In view of the subsequent cases on this ward of digoxin overdose, this must now be raised as a possibility but there is no confirmation of this since at the time of the gross autopsy, it was not considered. Because of this possibility, in retrospect, the coroner's office has been notified. In this patient, there are several other even more likely precipitating causes of death, namely, an arrhythmia and/or sepsis, and/or an enteric infection. The patient was being investigated for an arrhythmia, in fact that is why he was referred here. Some problems with dysrhythemia were noted in the period immediately prior to death. In addition, contraction band myocardial

B.4

Em/ac

" degeneration was noted histologically. " And it goes on.

Dr. Rowe agreed with me in the course of my examination of him that it was really not entirely helpful to say that death was caused by an arrhythmia, one needs to know what caused the arrhythmia. To the extent therefore the pathologist names arrhythmia as a likely precipitating cause of death, in my submission they are not really first causes but at best are only secondary causes. There was an agreement, wide agreement among the physicians that Baby Onofre's terminal symptoms were indeed consistent with digoxin intoxication. The toxicological data on this child again derived from exhumed tissues are found on page 1 of Exhibit 95E.

In each case the recorded levels are of digoxin and they are in liver 163 nanograms per gram; in tongue, 176 nanograms per gram; and thigh muscle, 83 nanograms per gram. If we were dealing here with fresh tissues the concentrations in liver and tongue would be in the range of concentrations found in children who had been receiving a therapeutic regimen of digoxin.

Dr. Kauffman's position understandably was that in light of the nature of the digoxin data that

were available, digoxin toxicity could not be proved. Dr. Hastreiter, on the other hand, although he conceded that the explanations advanced by Drs. Rowe and Freedom were, in his words, "plausible", did not consider them the probable cause of death. That evidence is found in Volume 79, page 7314. In Volume 77, beginning at page 6873, Dr. Hastreiter gave evidence that he was struck by the suddeness of the onset of critical symptoms and he observed that there was no objective proof that an arrhythmia had caused the death, or that sepsis had caused the death. He considered that there was a good probability that death was caused by digoxin toxicity resulting from a digoxin overdose and he found some corroboration for that in the concentration as recorded in the baby's exhumed tissues which he said were high, considering that digoxin had been held for the last four days of the child's life. Indeed it appears from the chart, page 112 and the orders, that digoxin was discontinued on December the 4th. The reason is not exactly clear, the level on December the 2nd has been 1.2 nanograms per millilitre.

In my submission, Mr. Commissioner, there are elements in the Onofre case which justify a high degree of suspicion. They are, I suggest,

these: first the suddeness and the unexpectedness of the baby's death. Onofre simply was not expected to die. His death when it occurred was a surprise and a puzzle.

Second, the lack of any clear cause of death, even after the autopsy. I acknowledge of course Dr. Rowe's evidence that after the autopsy the riddle of John Onofre's death was solved, but reading the final autopsy report, admittedly as a layman, I am obliged to say I do not find it so clear and comforting as Dr. Rowe found it, and as a layman, I take some comfort in the observation that another paediatric cardiologist, Dr. Hastreiter, seems to have had the same difficulty. The difficulty that I had in seeing the autopsy report as the answer to all of the questions raised by John Onofre's death.

The third element, not merely the sudden onset but the nature and the cause of Baby Onofre's terminal symptoms.,

The fourth, the digoxin concentrations recorded in the exhumed tissues, which in Dr. Hastreiter's view are at least corroborative of the impression of digoxin toxicity created by the onset, nature and course of the terminal decline and symptoms

of the child.

Lastly of course, what I have called over and over again the circumstantial elements, the time of death, presence of the team and so on.

In my submission, all of the circumstances here justify a finding that John Onofre's death was at least highly suspicious, or even that he probably died of digoxin toxicity resulting from the administration to him of an unprescribed and excessive dose of digoxin.

We come to the case of Colleen Warner who was admitted to the Hospital on March 6th, 1981, who died at 3:45 o'clock the following day in the morning of March 7th, 1981. She was five months old, and she was a patient on ward 4A, in room 418, and the Trayner team was on duty.

Again there was agreement among physicians that this death was consistent with the clinical condition, the disease condition of the child. That was a view shared by the cardiologists at the Hospital, Drs. Rowe, Fowler and Rose, and by the CDC and by Dr. Nadas who rated her prognosis as poor. Her clinical condition and course are summarized in the preliminary autopsy report at page 7 of the chart. She is reported as having been dusky and I sympathize

with this, in some respiratory distress when she was admitted to the Hospital.

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She was referred because of a dry cough, difficulty in breathing, and I cannot associate myself with this one "failing to thrive", and she was in congestive heart failure. No heart murmur was heard at that time. There was no obvious sign. Chest X-ray revealed that this child had a huge heart and ECG tracing showed sinus tachycardia. She was given digitalizing doses of digoxin. Upon admission she received the first dose of .08 milligrams of digoxin by IV push at 6:25 on the evening of March 6th. She also received at that time 4 milligrams of Lasix. That digoxin digitalizing dose was administered by a physician in the Emergency Department at admission. Six hours later, on the ward, she received a second digitalizing dose of 0.04 milligrams, also IV. She was to have received the third digitalizing dose six hours after the second but she did not survive so long. At 3 o'clock on the morning of March 7 she had a sudden cardiac arrest.

The nursing note of Sui Scott is found at page 55 of the chart, the long night note of March 6-7. Nurse Scott records that the baby was admitted to the ward, presumably at 1930, the time the note is dated. Vital signs on admission

C.2

were temperature, 37; apex 156; respiration 102, and blood pressure is noted and so on of different limbs. The baby was constantly crying and extremely irritable. Colour was dusky. Both parents were there. Vital signs were taken every two hours. The apex and respiratory rate were taken every hour. The baby was on order of nothing by mouth. Heart rate was ranging from 136 to 156 and was regular until around 3 o'clock when the rate rapidly dropped to 72 and became very irregular with long pauses. Blood pressure dropped to 70 over pulse. Dr. Kantak was called. Nurse Scott then records what happened from that point. At 3:05 heart rate was barely audible; at 3:06 Code 25 was called while CPR was started; at 3:08 the arrest team arrived. Ten minutes after that the baby was intubated. Resuscitation effort followed and was abandoned at 3:45 when the baby was pronounced dead.

You may remember, Mr. Commissioner, that Nurse Scott gave evidence here about the baby's course at night. It is found at Volume 118, page 6925, where Nurse Scott was able to flesh-out the note that she had written. Beginning at line 6 of page 6925:

"Q. Do you have any recollection

C.3

"of the child's course during that night and prior to the time of her arrest?

"A. At first as I said she was very irritable and very difficult to settle but she did settle down by the time I went to lunch.

"Q. Your nursing note is found on page 55 of the chart and it records, as you have said, that you admitted the baby: 'Using 40 per cent oxygen with a hood'. You record the vital signs on admission. And perhaps almost a third of the way through your note: 'Apex ranging from 136 to 156 and irregular until around 0300 when the rate rapidly dropped to 72 and very irregular with long pauses. Blood pressure dropped to 70 over pulse and Dr. Kantak called.'

"How much time did you spend with this child, from the time of her admission until she got into trouble at 3 o'clock in the morning?

C.4

"A. I spent a lot of time before I had my lunch break because she was so irritable."

THE COMMISSIONER: There is an error in the transcription or something because apex ranging from 136 to 156 is regular.

MR. LAMEK: It is "regular" in the chart. It reads in the transcript "irregular".

THE COMMISSIONER: Because you have said it and not Mrs. Scott I will accept it as an error.

MR. LAMEK: Thank you. To the extent that anybody was reading from the chart, either myself or Mrs. Scott --

THE COMMISSIONER: Yes, but there was never any question, was there?

MR. LAMEK: No.

THE COMMISSIONER: Because if you look at it, I don't know enough about it, but 136 to 156 does not seem that irregular.

MR. LAMEK: Indeed the note in the chart, page 55, is apex ranging from 136 to 156 regular until around 0300.

THE COMMISSIONER: You were simply reading from the chart.

MR. LAMEK: I was simply reading from the chart, yes.

THE COMMISSIONER: All right.

MR. LAMEK: "How much time did you spend with this child, from the time of her admission until she got into trouble at 3 o'clock in the morning?

"A. I spent a lot of time before I had my lunch break because she was so irritable.

"Q. Do you recall what time you went for lunch?

"A. No, about 1:30.

"Q. Did you look in on the child when you came back from lunch?

"A. Yes.

"Q. And how was she then?

"A. She was sleeping.

"Q. Do you have any recollection of the approximate time you got back from your lunch break?

"A. No.

"Q. Do you recall how long after you got back from lunch that she got into trouble? We know she got

C.6

"into trouble at 3 o'clock in the morning. About how long had you been back when that occurred?

"A. I recall I went in to have a look at her and I went in to see my other patients.

"Q. Yes.

"A. And then I went back into the other room, oh, an hour and a half.

"Q. As much as that?

"A. Yes.

"Q. That would suggest you got back from lunch about 1:30. Would that be right?

"A. Possible.

"Q. You had an earlier lunch then?

"A. It is possible.

"Q. Do you know? Do you recall?

"A. No.

"Q. But again some time elapsed between your return from lunch and the events that you record in your note on page 55 of the chart? That is to say that the heart rate dropped very rapidly to 72, long

C.7

"pauses, became very irregular. Blood pressure dropped. By 5 minutes past 3 the apex was hardly audible and at 6 minutes past 3 a Code 25 was called?

"A. Yes.

"Q. Some period of time then elapsed between your return from your break and those events happening?

"A. Yes.

"Q. The child was not on any constant or shared care and therefore there was no need for you to be relieved when you went for your break. Is that true?

"A. Yes.

"Q. Do you recall anything else about the events of that night, Mrs. Scott?

"A. No."

This then was another of those cases about which Mrs. Scott gave her impression, leaving a child who by then, having been restless, was apparently settled, came back from her break to find

C.8

her in the same condition as she had left her only to find that very shortly afterwards the child deteriorated and went into an irreversible decline.

At page 56 of the chart, sir, there is Dr. Kantak's note on the Code 23 call, this is the second note on the page. You will recall that Nurse Scott said when she first observed these symptoms in the baby she called for the doctor. At 0300 a 23 was called. The baby was breathing well, had episode of bradycardia, heart rate 80 to 90 per minute, irregular on the monitor. There were some episodes where the heart rate was 60 to 70. Oxygen was given by face mask and subsequently heart rate picked up for a short while.

At 0310, a sudden onset of ventricular tachycardia. Code 25 was called.

The reference to ventricular tachycardia is of some interest, Mr. Commissioner, because on page 25 of the chart in the discharge report it is reported that the physical examination of this child when she came into the Hospital and the investigation that went on following her admission, the end of the third paragraph on the page, an arrhythmia had been observed then. It is described here on page 25:

C.9

"The diagnosis of ECG was sinus tachycardia versus supraventricular tachycardia with combined ventricular hypertrophy."

If that be accurate I suggest that the arrhythmia or dysrhythmia that was observed in the child's course and history and sinus tachycardia was different from that which she manifested in the course of her terminal symptoms and noted on page 56 of the chart by Dr. Kantak.

It may not be enough to say, look, this child had had a dysrhythmia earlier in her course and it is not too surprising that she had one at this point if it was a different kind of arrhythmia.

On the top of page 56 is Dr. Mounstephen's note of the arrest:

"25 being called at 3:05, 3:06" - something of that sort. He said that when he arrived the child was in ventricular flutter. Again consistent with Dr. Kantak's observation of ventricular tachycardia.

Drugs were administered, including atropine for a heart rate of 40 in the second line of that note. Bradycardia had progressed at that point. The heart rate had dropped to 40 and atropine was given. Cardioversion was attempted to reverse the fibrillation or stop fibrillation and that produced sinus bradycardia with a heart rate of 30. No output from the heart, no peripheral pulses, no response to cardiac drugs, still no output.

Forty-five minutes into the arrest no output, pupils fixed, dilated, resuscitation stopped.

It was agreed by the physicians who gave evidence here, in particular by Drs. Hastreiter,

Rowe and Rose that the death of Colleen Warner and the terminal symptoms that she exhibited were consistent with digoxin intoxication. The question then of course becomes what was the cause of death.

At page 7 of the chart is the preliminary autopsy report. On the final paragraph there is a report that the child had congenital heart disease with a ventricular septal defect and a super-imposed -- I don't think there is anything omitted there -- acute cytomegalovirus infection, which according to the pathologist, accounted for the deterioration of the child's condition.

On the basis of those findings presumably Dr. Rowe gave us his opinion that the death was due to the diseased condition of the child and Dr. Rowe said that death was caused by the matters disclosed at autopsy.

There is limited toxicological information on the baby. It is found in Exhibit 95A at page 8 and consists of levels recorded in fixed heart tissue showing concentrations of digoxin in the left ventricle, left atrium and septum of 119, 5 8 and 101 nanograms, respectively.

The levels recorded in the fixed left ventricle and fixed septum are in the overlap area

between the therapeutic and fatally toxic range of concentrations recorded in the literature for fresh heart tissues.

Once again, of course, the toxicological data are inconclusive and it is important, I suggest to remember, that in the nine hours preceding her arrest this child received two digitalizing doses of digoxin, aggregating .12 milligrams.

Her maintenance dose was to be .024 milligrams twice a day for a daily total, therefore, of .048 milligrams. The amount received over six hours, the emergency room and then later in the ward, had been approximately two and a half times the total daily maintenance dose that she was to receive.

I asked Dr. Rowe whether, in light of the close temporal proximity of the arrest and death to the first two of those digitalizing doses, whether any thought had been given to the possibility of the child's suffering from digoxin toxicity. That passage is found in Volume 16 of the evidence, beginning on page 2805 at line 6. We were referring to the two doses that had been given and the one that was not.

Line 7:

"Q. -- because the child did not survive for that. But what had happened here

"then was the child had received 0.12 milligrams of digoxin in the 7-1½ hours preceding the onset of brady-cardia, and in the circumstances, Doctor, in the light of the particular nature, onset and course of the terminal events of Colleen Warner, would it in your view been appropriate to consider the possibility of digoxin intoxication as the cause of death?"

The answer was:

"A. No. At least I would have said that the more likely cause might be related to the fact that the baby had endocardial fibroelastosis.
I think that Dr. Rose did consider the possibility. She at least made a point of reviewing the digoxin doses in detail.
It was mainly I think not because of the concern about overdose as the concern about unusual reaction of the heart that has a cardiomyopathy to digoxin because that is an acceptable concern.

"Q. Yes.

A. Her conclusion was, however, that the doses were appropriate and on --"

You asked a question, Mr. Commissioner.

"THE COMMISSIONER: I am sorry, what was that, Doctor?

THE WITNESS: Her conclusion..."

Dr. Rose's conclusion was:

"-- that the doses were appropriate and she didn't think that it was likely that digoxin had anything to do with the actual mechanism of death. So that she ascribed this as a death related to the endocardial fibro-elastosis malformation.

I think that her later view was that the possibility of a viral background for that also existed.

MR. LAMEK: Q. When did Dr. Rose consider the possibility of digoxin involvement in the death because of the --

A. I think the next morning.

Q. I see.

"A. Because she was the person on duty and I think she checked that information out.

Q. Doctor, I see no indication from the chart that there was any call for a dig. level to be taken at autopsy.

A. No."

With all the benefit of hindsight, it is, of course, extremely unfortunate a post mortem sample was not drawn for digoxin level, but it was not.

Dr. Rose, having satisfied herself that the digitalizing doses were proper did not take that enquiry any further.

Of the physicians and pharmacologists only Dr. Hastreiter thought that there was what he called a fair probability of digoxin overdose. For lack of clear digoxin data Dr. Kauffman assigned a digoxin score of one to Colleen Warner.

In my submission, the digitalizing doses are a complicating factor here. If they produced toxicity in Colleen Warner then there is at least in this case a non-sinister explanation for that toxicities having manifested itself in the middle of the night, because that was the course of events following the

timing of the administration of the doses and what I regarded as s cirmstantial element in other situations, death occurring in the middle of the night, becomes a non-element, if indeed there was some toxicity resulting from the two digitalizing doses received by this child at 6 o'clock and midnight.

In my submission, considering all of the circumstances, there is some basis for thinking that Colleen Warner's terminal symptoms, arrest and death, may have resulted from digoxin toxicity, but even if you so conclude, Mr. Commissioner, you cannot, in my submission infer that that toxicity resulted from an unprescribed dose of digoxin. The possibility and even perhaps the probability exists that any toxicity that may have occurred resulted from the administration of the two substantial digitalizing doses. I am not suggesting for a moment that they were improper doses, but the child did have a condition, myocardial fibroelastosis which Dr. Rowe has told us is in a sense a sensitizing condition as to the effects of digoxin. It may be that those two perfectly proper digitalizing doses did produce a measure of toxicity in this child which manifested itself in the middle of the night and was exhibited by the symptoms which were recorded and which we

come to recognize as being indicative, although not exclusively indicative of digoxin intoxication.

As I say, even if there can properly be a finding of digoxin toxicity as having played a part in the death of Colleen Warner it does not necessarily follow from that finding that there is anything sinister about the case.

The final child in this group is Michelle Manojlovich. She died at 3:35 in the morning of March 12th on Ward 4B. She was nine months old. She had been admitted to the Hospital on February 2nd. It was her last admission to the Hospital. She had been there before.

At the time of her arrest and death the Trayner nursing team was on duty on Ward 4A.

This child had a rather complicated history, Mr. Commissioner. It is summarized in Dr. Rose's letter, Dr. Vera Rose's letter to the referring physician which is found at page 25 of Volume 1, of the child.

It is dated January 7th, 1981 and it records that Dr. Rose had seen Baby Manojlovich on the 6th of January and records the baby's diagnosis of critical pulmonary stenosis. The kid had surgery performed by Dr. Trusler when she was six days old.

Since that time she has been maintained on digoxin and aldactazide which was being administered at home.

> "Since her last visit to me last September, she has gained a little and has taken her feedings quite well. She still perspires quite easily and her cyanosis has increased particularly with crying."

Records the observations made on the preceding day including:

> "The liver edge was palpable 3cm below the right costal margin and the spleen tip was also felt."

Indicating as I understand congestive heart failure.

> "The chest X-ray still showed considerable cardiomegaly with an enlarged left ventricle. The electrocardiogram showed sinus rhythm."

As a result of this assessment, this child remains in some degree of cardiac failure despite the use of digoxin and diuretics. Her cyanosis is also increasing ...

"I think the child should be re-admitted for cardiac catharization in order to assess the child's

cardiovascular status and consider further surgery to improve the blood flow to the lungs."

Dr. Rowe has made arrangements to have the child admitted January 18th, and catharization on the 19th and she increased the dig. and aldactazide dosage.

The child was admitted January 18th and she stayed until January 20th. The course of that admission is summarized in the discharge report which is found in Volume 2 at pages 519 to 20.

THE COMMISSIONER: I'm sorry.

MR. LAMEK: Volume 2, page 519, sir.

It records again and summarizes the history. Under investigations it reports the results of X-ray and the ECG and the cardiac catharization.

"Subsequent angiography..."

This is the second part of the paragraph. It showed the child to indeed have pulmonary stenosis with intact ventricular septum, small right ventricle and tricuspid valve and tricuspid regurgitation. There was also evidence of the central surgically created AP shunt.

The child was taken to the cardiac catharization lab on the 19th of January and the discharge diagnosis, the second page of that report

of pulmonary stenosis, the findings reported, on the earlier page.

> "Follow-up: The child will be discussed at the Cardiovascular Surgery Conference where recommendations will be made for future surgical correction to relieve the hypertension on the right ventricle."

She came in for that further catharization and investigation and subsequently came in for her final admission on February 2nd, and on February 5th she went to the O.R.

The discharge note for the final admission, the death report, is contained in Volume 1 at page 68. It is recorded in the second paragraph, the child was taken to the O.R. on the 5th where the surgery was performed. The central shunt which had been created in the newborn period was enlarged. Following surgery, five lines into the paragraph:

> "The child had a very difficult operative course."

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" Also during the immediate post-operative period the child developed signs of hepititis and developed acute hepatic failure. No diagnosis for this type of hepititis was ever found, however it was felt to be non-A, non-B. "

You may remember, sir, that those were the rather imaginatively named major varieties of hepititis, it was neither of those:

" Slowly the congestive heart failure and hepatic failure began to resolve and the child became stable and was transferred to the general floor. On the general floor the child continued to make slow gradual improvement with increasing cardiac output, clinically and improving hepatic function. On March 4th, the child experienced an episode of aspiration, causing acute respiratory distress requiring readmission to the ICU where the child was intubated for respiratory support. She was subsequently weaned from the ventilator

" four days later and she returned to the general floor where she began making a slow gradual process in the process of recovery. "

It then reports the events of the early morning of March the 12th and the arrest:

" ... after the child has spent a comfortable day with no specific problems, she suddenly became bradycardic with a slow rhythmic rate of 40 and developed signs of shock with no cardiac output. Resuscitation attempts to restore cardiac output was unsuccessful and the child was pronounced dead. There was no consent for post mortem examination ... "

Dr. Rowe told us, and the evidence is found in Volume 17, pages 3011 to 3012, he told us post-operatively a major concern was that Baby Manojlovich was suffering increasing congestive heart failure. He thought she was gradually getting worse in the last five days or so after her return from the ICU. Indeed when he gave evidence here Dr. Rowe told me he really did not agree with the summary in the discharge

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report that the child was gradually improving.

Now there seems to have been some difficulty in the early part of her stay in getting her serum digoxin level stable. In Volume 2 of the chart, beginning at page 333 are the biochemistry reports. There were several digoxin levels taken and on page 333 sample drawn on February 6th produced a level of 1.3, page 335 a level on February 9th of 1.5, on page 337 the sample drawn on February 12th was 3.2 and that caused some concern. Six days later, page 345, the level of February 18th was put down, it was 2.4 but still you will remember at the upper range of the acceptable therapeutic level. On February 20th, page 348, the level went back up to 3.3, page 354 there are three levels recorded, on February the 23rd a level of 2.0, on February 24th a sample drawn at 5:30 o'clock in the morning of 1.5, and a sample drawn at 8 o'clock on the morning of February 24th 1.3. Things at last seemed to be under control, on page 355 sample drawn February 25th 1.5, page 356 February 26th 1.4, February 27th 1.4, page 357 March the 3rd 1.6, March the 5th 1.1; page 360 March 11th 2.2 and things finally seemed to have gotten themselves resolved. During that period there is a good deal of shifting and changing of the digoxin

doses and the orders to hold and that sort of thing.

The nursing notes which are contained in Volume 1, and in particular for the period March 8th to 12th plot her progress in the last few days of her life, beginning at page 173, page 173 at the top of the page a very blunt assessment: "looked terrible this morning" at 10 o'clock a.m.:

> " Respiratory rate up, very distressed, chest sounded very wet with course crepitations everywhere, heart size seemed to have been increased on chest x-ray. "

Later that day at 3 o'clock:

> " Much better, respiratory rate down. Much less indrawing. Chest sounds almost clear now. "

THE COMMISSIONER: Is this the 8th of March?

MR. LAMEK: I believe it is, yes, sir. Halfway down the page, the 8th of March:

> " 0700-1100: Chest very noisy. Colour poor, cyanosed out of oxygen - little improvement with 70% oxygen by hood. Restless, very difficult to settle. "

Between 11 o'clock and 2 o'clock, that is the same day,

the 8th:

" Chest improved by 2 o'clock. Air entry improved throughout. Respiration much improved, less distressed. "

It is recorded on the next page that she settled well and slept. From 2 o'clock to 5 o'clock:

" Air entry throughout the chest improved. Colour improved. Slept very soundly, much less distressed. Vital signs remain stable. No emesis. "

That evening seemed to regress a little:

" Air entry decreased again to left lower lobes. Appeared comfortable and content. Cardiovital signs unchanged. Remained afebrile throughout afternoon. "

7:30 o'clock that night:

" Chest - becoming restless again, respirations slightly more laboured. "

A sort of up and down pattern that flows, through these few days.

There were no post mortem digoxin levels

for this child. Exhibit 95A, at page 12, refers to specimen T25 described as an amber coloured fluid, described as Manojlovich blood and the report is that digoxin was not detected in the blood. I say on the face of it that is odd because if it were really blood one would have expected a dig. level because the baby was on digoxin. Nevertheless that is the report, a totally inconclusive and unhelpful piece of information.

In considering the death and the manner of dying, the diagnosis and the clinical course of Baby Manojlovich, Drs. Hastreiter and Nadas concluded that her death was consistent with her clinical condition. Dr. Fowler thought the death might be or could be consistent with her clinical condition; and Dr. Rowe because I didn't ask him quite that question, didn't really answer it. The terminal events and the symptoms that were exhibited were recognized as being consistent with digoxin intoxication.

As to the opinions as to the cause of death, Drs. Rowe and Fowler and Vera Rose lean heavily on the suggestion of aspiration as a triggering event. Unfortunately if there was no autopsy the aspiration theory could not be proved and it rests on an inference drawn from Dr. Costigan's observations

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recorded on page 183 of Volume 1 of the chart. At page 183, Dr. Costigan writes:

> " Responded to Code 25 call. On arrival Michelle was receiving CPR and just starting to be bagged. Monitors show bradycardia, nodal rhythm of 60 to the minute, the anaesthetist arrived. On opening mouth full of food, some also on pillow, suctioned and intubated quickly. "

That observation by Dr. Costigan was thought to give rise to a reasonable inference that there had been some aspiration of food by the child which had triggered the terminal event. As I say unhappily that could not be demonstrated at autopsy because there was no autopsy.

Dr. Kauffman gave a digoxin score of 1 to Baby Manojlovich, reflecting the lack of toxicological evidence, and for the same reason Mr. Cimbura said there was no evidence of digoxin toxicity, meaning toxicological evidence.

Dr. Hastreiter in Volume 77 at pages 6885 to 6886 thought there was what he called a fair probability of digoxin overdose and he said digoxin involvement could not be excluded.

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Putting it fairly bluntly, Mr. Commissioner, clear supporting evidence for either suggested cause of death is lacking. Aspiration as a triggering event to produce cardiac arrest in Baby Manojlovich's clinical condition could be plausible, but it it wholly a matter of inference drawn from Dr. Costigan's observations. Digoxin toxicity is also wholly inferential based on the sudden manifestation of severe bradycardia. In my submission, I don't intend to be jocular about it, the choice is almost impossible to make and I can only make this submission to you that if, sir, you are inclined to view Michelle Manojlovich's death with any degree of suspicion, the evidence is so ambivalent as to justify I suggest nothing but the lowest level of suspicion. In saying that I am aware that the CDC report authors placed this child in their Catagory A. I am obliged to say that as I understand the evidence that we have seen an heard, I have substantial difficulty with that classification.

Mr. Commissioner, when I listed yesterday the children for whom there are toxicological data I omitted Andrew Bilodeau of course and I therefore turn now to his case as the last in this group of children.

Andrew Bilodeau died on July 2nd, 1980 at 2:10 o'clock in the morning in room 418. He was a month old when he died. He had been admitted to the Hospital three days earlier on July the 19th. The members of the Trayner nursing team were on duty on ward 4A when he died.

His short stay in the Hospital is summarized in the death report at page 20 of the chart:

> " ... was admitted for further investigation of a two day history of coughing, difficulty feeding, increased heart rate and the development of a cardiac murmur. Just prior to his admission he had been digitalized and started on lasix. "

When he came in he was:

> " ... not cyanosed in mild respiratory distress with a rate of 36 per minute but clear lung fields. Pulse rate of 132 per minute, liver palpable 2 centimetres.
>
> The patient was managed satisfactorily over the weekend of his admission with continuation of digoxin and aldactazide. "

He went to the Eco Lab on July 21st and that produced a diagnosis of truncus.

We know from all the evidence that we have heard, particularly from the of Dr. Rowe in the earlier stages, that that is a particularly severe congenital defect:

> " On the afternoon and evening of that day, the baby gradually deteriorated with increasing severe congestive cardiac failure ... "

Managed medically with oral and intravenous digoxin, large doses of intramuscular and intravenous lasix and oxygen with strict fluid restriction.

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Despite these measures the baby gradually deteriorated until he sustained a cardiorespiratory arrest at 1:30 o'clock a.m. on the 22nd of July. Despite vigorous attempts to resuscitate he failed to recover. Permission was asked for an autopsy. It was not granted. We have no post mortem information about this child.

The diagnosis by two dimensional echocardiogram, truncus, was important. That is a very severe defect, as we have heard.

With respect to the terminal symptoms demonstrated by the child, the final nursing note, which is Miss Nelles at page 24 of the chart, the note of the long nightshift of July 21 - 22 covers the period from 7 o'clock p.m. to 1 o'clock a.m. when the arrest occurred. She records that in the first part of the shift the heart rate was ranging from 140 to 186 and was regular. Respirations were laboured; there was decreased air entry to both upper lobes and left lower lobe. The baby vomited the 9 o'clock feed and the medications. There was repeated feed by gastric tube and vomited again. IV was started at 10:30 o'clock and a dose of lasix was given.

At 1:25 o'clock in the morning, the

child was found to have a heart rate of 60 - 70 and dropping very substantially down to the range recorded until 1 o'clock. The child was in respiratory distress. A Code 23 was called for Dr. Reynolds. A couple of minutes later a Code 25 was called. The baby was in severe distress, the heart rate continuing to fall. Three minutes after that the arrest team arrived and CPR began and this went on to the eventual pronouncement of death.

The arrest note is on page 26. It shows there was initially a recovery of sinus rhythm and weak output, gasping respirations. By 1:35 o'clock heartbeat had been lost completely and there was no further response to any resuscitative measures.

It is common ground, Mr. Commissioner, among all of the physicians who testified about this baby that his death was consistent with his clinical condition. He clearly had a very serious cardiac anomaly indeed. Dr. Hastreiter gave him a severity rating of 9 and Dr. Nadas rated his status at admission as intermediate but thought his prognosis poor. Equally all agreed that the child's death and manner of dying were consistent digoxin intoxication.

Much later Andrew Bilodeau's body was exhumed, samples were taken at the subsequent

autopsy and were sent to the Centre of Forensic Sciences for digoxin assay. The results are reported in Exhibit 95E and 95F. There were lots of samples, Mr. Commissioner, specimens, and I won't bother reading them all. They are all reported as digoxin. There are several samples of heart tissues, lung tissue, liver tissue, and then stomach and intestine contents. Those are the results reported in Exhibit 95E.

In 95F at page 2 assay results are reported on brain tissue from the exhumed body of the child, again reported in digoxin. The notes as we look at 95F and the brain tissue results, the note there indicates with the exception of the Choroid Plexus the concentrations of digoxin in the regions of brain of Bilodeau are higher than those found in the corresponding fresh autopsy specimens from three infants or children on digoxin therapy studied to date. He then goes on with the disclaimer that because of the enbalming process and so on the results must be regarded as inconclusive.

Similarly the notes in Exhibit 95F on the exhumed heart, lung, liver materials indicate that those are within the range of concentrations reported in fresh autopsy specimens from children who have been on digoxin therapy and again the disclaimer

with respect to exhumed samples.

As to the probable cause of death there is again remarkable harmony among the experts. Drs. Rowe and Hastreiter find themselves in agreement that Baby Bilodeau's deterioration and death were natural and attributable to his clinical condition and severe disease state.

In my submission it is at least arguable that there is a basis for some measure of suspicion about the death of Baby Bilodeau. I suggest that basis comprises the combined effect of a number of elements. Despite the severity of the disease state of Baby Bilodeau Dr. Rose seems to have regarded his death as having occurred rather suddenly and unexpectedly. She so wrote to the referring physician, found at page 5 of the chart. She, herself, found the death rather unexpected.

The second element of course is the sudden onset of the terminal symptoms of the child, rapid course, their nature and their irreversibility, symptoms associated with digoxin toxicity, and they are of a kind that appear in many of the charts of the children who in my submission probably did die of digoxin toxicity. The digoxin concentration as recorded in exhumed tissue, especially in the brain

tissue, although they may not admit a quantitative interpretation may be at least indicative of substantial concentrations of digoxin at the time of death, and the circumstantial events all fall into the familiar pattern.

I list those elements merely for the sake of saying this, sir, that those elements taken together could justify, although I'm not urging you to make a finding, that some measure of suspicion attaches to the death of this child. The medical evidence does not always take into account all of the circumstances, as indeed it should not.

Mr. Commissioner, that is a natural breakpoint in my submission - a natural breakpoint for us.

THE COMMISSIONER: 20 minutes then - how long do you think you're going to be, Mr. Lamek?

MR. LAMEK: I should be through well before lunch.

THE COMMISSIONER: Mr. Scott, what do you want to do?

MR. SCOTT: I am ready. I may ask for a break at the end of the day, to stop a little early, but I think I can begin right away.

THE COMMISSIONER: All right - depending

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on whether Mr. Lamek finishes well before --

MR. SCOTT: We may all want a rest when Mr. Lamek finishes.

THE COMMISSIONER: All right, 20 minutes.

--- Short Recess.

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--- Upon Resuming.

THE COMMISSIONER: Before you start, Mr. Lamek, I have a statement or a ruling, or whatever you want to call it, on the standing parties on Phase II, at 2:15 this afternoon. Yes, Mr. Lamek.

MR. LAMEK: Mr. Commissioner, I have now reviewed every case for which there is any scrap of toxicological information and even in many of those cases the classification of a death as natural, suspicious or probably or clearly attributable to digoxin intoxication is truly a matter of inference from evidence, other than the toxicology data which, in many cases, are at best, merely corroborative of an inference drawn from other information.

In the cases that are left to deal with, there is no toxicology information at all to provide even corroboration of impressions formed or inferences drawn from other events or circumstances.

The remaining child, and I list them in the chronological order of their deaths are: David Taylor, Lillian Hoos, Philip Turner, Dion Shrum, Kelly Ann Monteith, Antonio Velasquez, Richard McKeil, and Antonio Adamo, D'Arcy MacDonald, Real Gosselin, and Frank Fazio.

I don't propose to deal with each of

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these 11 children separately and individually, Mr. Commissioner. I have attempted to group the deaths under two headings, putting into one catagory those with any elements that may generate suspicion other than the purely circumstantial elements of time of death and presence of a nursing team. Such other elements may, for example, be that the death was thought to be unexpected by physicians or thought to be not consistent with the child's clinical condition or that no cause of death was established or that the cause, or the death caused concern to physicians when it occurred or, indeed, anything else that may create any unusual aspect of the death.

For the deaths in that group I will refer you, sir, to the particular matters which may justify a measure of suspicion in my submission. The final group will comprise those deaths where the only element in any way capable of arousing any suspicion is the presence of one or another of the circumstantial elements, death in the middle of the night, death in the presence of the team and as to that I will say that that is an insufficent basis for the creation of any reasonable suspicion.

The children in the group were, in my submission, there are elements that may generate

greater or lesser degrees of suspicion that the death was other than a natural one and I have arranged them again chronologically by date of death are: David Taylor, Dion Shrum, Antonio Velasquez, Richard McKeil, D'Arcy MacDonald, and Real Gosselin.

Perhaps I may deal briefly with each of those. David Taylor first.

This is a three month old child. He died at 2 minutes past 2 o'clock in the morning of July 27th on ward 4B and the Trayner team was on duty on 4A. The circumstantial elements are present.

He had severe congenital heart defects including particularly severe aorta stenosis, a very serious defect and one which can, on the evidence that we have heard, cause sudden and, in terms of timing, unexpected death.

He also had a whole host of other heart defects, including endocardial fibroelastosis, severe left ventricular hypertrophy and right hypertrophy I include him in this group for the following reasons: first, Dr. Hastreiter's views is that the terminal symptoms exhibited by this child are clearly consistent with digoxin toxicity and his concern about the timing of the death and the very sudden deterioration from a period of apparent stability. Dr. Hastreiter

recognized that the nature of this child's cardiac anomalies could produce a sudden and unexpected death, but nevertheless he was concerned, he said, about the timing and the very marked suddeness of the deterioration of the child. His evidence in those respects is found in Volume 77, pages 6818 to 9 and in Volume 79, pages 7274 to 7276.

It is also based on Dr. Mirkin's view that the terminal symptoms displayed by David Taylor, and especially the electrocardiographic evidence of AV block and the Wenckebach block phenomenon were more consistent with digoxin toxicity than with the child's clinical condition.

His evidence in those respects is found in Volume 88, page 9042 to 6 and pages 9049 to 9051.

It is also based on Dr. Fay's view found in Volume 68, 4856 to 4858. That is the range of the terminal symptoms exhibited by David Taylor which included vomiting, arrhythmia, sinus tachycardia, AV block, ventricular fibrillation and a prolonged PR interval on ECG. That whole range of symptoms in Dr. Fay's view, was strongly suggestive of digoxin toxicity.

It is not just the mere fact of some divergence in the expert medical opinion, but rather

the bases upon which Drs. Hastreiter, Mirkin and Fay assert their suspicions that lead me to make the submission that you could properly find a measure of suspicion attaches to the death of David Taylor. You will recall too, sir, that when this death was discussed in the first of the M and M conferences in September of 1980 the recital of the child's terminal symptoms led to the raising of the question: Was he suffering from digoxin toxicity? That is found at page 11 of the ward 4A communications book.

So I say in that case there are elements which are capable of raising a level of suspicion about the death.

The next one is the case of Dion Shrum. Dion Shrum died in the evening at 7:45 o'clock p.m., August 9th, 1980, on ward 4A. Members of the Trayner team were on duty at the time of the onset of his critical symptoms. He had been admitted to the Hospital the previous day, August 8th. He was two months old. He was suffering from a number of congenital heart defects, notably total anomalous pulmonary venus return and he was in very severe congestive heart failure and all agreed that he was severely ill.

His inclusion in the group is based on essentially two things: first, Dr. Hastreiter's view that there is a good probability, which he later reduced to a fair probability of digoxin involvement, because he said heart block, which appeared in this child hours after a cardiac catheterization is unusual. He did link those two events together. He placed emphasis on the symptoms of seizure and bradycardia that were exhibited and on what he considered to be the unusual timing of the child's arrhythmias. Also upon Dr. Fay's concern over those same symptoms of heart block and arrhythmia.

I don't suggest for a moment that the case of Dion Shrum, the elements upon which suspicion may be based, are as persuasive as they are perhaps in the case of David Taylor or others in the group. To the extent there are elements present which might give rise to a measure of suspicion they are, in my submission, those.

The next case is that of Antonio Velasquez. He was a year old when he died at 4:25 o'clock in the morning of August 24th on ward 4A in the presence of members of the Trayner nursing team. This child's death took everybody totally by surprise. It was unexpected. It was clearly not consistent,

consistent with or attributable to his clinical condition. He had had surgery and the cardiologists at the Hospital expected to send him home very soon to St. Lucia where it was anticipated he would have a normal boyhood and perhaps come back at the age of 10, 11, 12 for a complete and permanent repair of his heart defects. He developed some problems in the post-operative period, including a measure of congestive heart failure, but nothing that was considered life threatening.

In the middle of the night August 23rd to 24th, he was found to be bradycardic at the rate of less than 90 per minute and to have small pupils and to be unresponsive.

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He was thought to be suffering from the effects of codeine and he was given as an antidote to that a drug called narcan or naloxone. The dose he received was approximately twice the usual dose, and the evidence is that the drug has a wide therapeutic index, virtually impossible to produce dileterious effects by even a substantial overdose. He responded to some extent by becoming more alert, the over-large dose of narcan was repeated and following that he went into cardiac arrest from which he could not be resuscitated.

The cardiologist, recognizing that it was virtally impossible to suffer ill effects of an overdose of this magnitude of narcan racked their brains for an explanation for this death. The explanation they came up with was that the baby must have had an ideosyncratic reaction to narcan, something in the nature of an allergic reaction, and such reactions as referred to in the literature apparently are extremely rare and they could find no explanation other than that.

Without wishing to appear too cynical about that, that theory I suggest has a double virtue of first furnishing an explanation for what was otherwise a totally mystifying death; and second,

doing so by postulating a reaction that was so rare as not to be reasonably foreseeable and so eliminating any question of blame in the death. I am not suggesting that is the reason but it did have that added benefit.

Now fairly there was a clear split of opinion here among the physicians from the Hospital, the pharmacologist from the Hospital and those from outside. Those from outside were not particularly receptive to the explanation advanced by the Hospital for Antonio Velasquez' death.

Dr. Mirkin considered digoxin toxicity possible but he didn't think it likely as a cause of the symptoms, and he didn't think very much of the ideosyncratic reaction, and Dr. Fay had the same position.

Dr. Hastreiter thought the symptoms were indeed consistent with digoxin toxicity and felt that a good deal of suspicion surrounded the death of Velasquez.

Dr. Kauffman because there was absolutely no toxicological information did not opine on the likelihood of digoxin involvement but he seemed to find the narcan theory unlikely.

In my submission there is clearly a

basis here for a finding that the Velasquez death has not been satisfactorily explained and that it gives rise to a measure of suspicion that digoxin toxicity may have played a part in that child's death.

Richard McKeil was six weeks old, he came into the Hospital for Sick Children on September the 2nd, 1980 and he died on October the 15th, at 4:27 in the morning on Ward 4A, again in the presence of members of the particular nursing team.

He was quite sick. Dr. Hastreiter scored a severity of his disease at 7. Dr. Nadas said his prognosis was "guarded". His death was considered consistent both with his clinical condition and with digoxin toxicity.

This was a child in whom there had been an ongoing difficulty in striking the right therapeutic dose of digoxin.

The biochemistry reports are found in the chart beginning at page 158 and I don't ask you necessarily to refer to them, sir, but they show the following dates and levels recorded: September 8th, 2.5, September 16th,4.6, September 24, 2.5, September 28, 1.9; October the 2nd there was a not sufficient quantity returned; October the 3rd, 3.4, October 6th, 1.2, October 8th, 1.3. Just when it

looked as though the thing had finally settled down, October the 14th, the day before he died greater than 4.7. Those levels of course were accompanied by a series of hold digoxin orders, dose changes and so on, because the physicians obviously struggled to strike the right dosage of a drug which the child clearly needed.

As for the condition of the child the nursing note for the long day of October the 14th is of some interest and that is at page 78 of the chart.

It is of interest because the sample was drawn at 9:40, and it is entirely possible that at 9:40 too close to the administration time of the digoxin, that was thought to be an explanation. But certainly the significance, in my submission, of the long day note is that the child was not displaying any symptoms of intoxication during the day. He vomited, that is possibly the least specific of all symptoms, but his vital signs are recorded:

"Apical rate 137 to 119 regular this shift."

The breathing got faster when he fed, but there is absolutely no indication of any rhythm disturbance in this child throughout the day following the digoxin

sample drawing at 9:40 which yielded a level of 4.7.Whatever the explanation of that level whether it was drawn too close to the time of the prior administration, or anything else, it does not appear to have had any cardiac effects upon the child during the day.

The same appears to have been true during the first part of the night shift, and that is found on page 80. Until 3:45 in the morning there is no indication of any rhythm or heart rate disturbance at all in this child. He is alert and bright and his heart rate is regular.

In my submission it is clear that whatever the 4.7, greater than 4.7 level meant it did not mean intoxication with any cardiac manifestations. But at 3:45 there begin a series of cardiac manifestations which we have learned to recognize as being symptomatic of digoxin intoxication. There is a sudden dramatic turnaround, the alarm sounds, and then it is found that the heart rate has dropped to 80, it slowed considerably from the range at which it had been recorded in the earlier part of the shift a range of 138 to 147. It is not only slowed it is irregular and it went up to 120 and dropped back again, couldn't hear a heart beat, fluttering on the monitor, then a Code 25 was called. The arrest note on page 78

records:

"Extreme bradycardia with spontaneous gasping and cyanosis."

Medications are given and there is no response and the arrest note records:

"Extreme bradycardia with 5 minutes of supraventricular conflexes."

Then there is no further heart activity at all.

Now Dr. Rowe agreed that it was possible that digoxin had played a role in this baby's death. In Volume 13, page 2295 and I won't bother reading this at this stage, Mr. Commissioner, the passage begins at line 8 and goes on to page 2299 at line 8; Dr. Rowe acknowledges that, yes, the symptoms are, indeed suggested there may have been some digoxin intoxication and of course there was that high level earlier in the morning. It is clear that he was thinking of the connection of those two things in terms of the greater than 4.7 level.

In my submission it is very arguable indeed that in light of the lack of rhythm disturbances symptomatic of digoxin intoxication during the day of the 14th, or the first part of the night shift of October the 14th-15th that if digoxin

toxicity did play a part in this death it was as a result of a further administration of digoxin that is to say an unprescribed administration because digoxin was discontinued during the day of the 14th, as appears from page 153 of the chart.

The terminal events, as all physicians agreed was certainly consistent with digoxin toxicity and in my submission there is a sufficient basis for a finding that suspicion is aroused by the death of Richard McKeil.

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D'Arcy MacDonald, a five month old child, was admitted to the Hospital on December 12th, 1980 and again, rather like McKeil, died in the early hours of the following morning, at 4:30 o'clock on December the 13th in ward 4A again in the presence of members of the Trayner nursing team. D'Arcy MacDonald is included in this group because as I understand the evidence there is a measure of uncertainty about the cause of his death and none is really identified at autopsy.

Dr. Rowe favoured congenital heart defect and pneumonia as likely causes but he agreed that the differential diagnoses that were written in the chart at the time of the arrest seemed fair. On page 58 of the chart the resident on call on 4B recorded that at 3:35 o'clock he was called because the baby was not looking right, vital signs had been given on the phone to him. He arrived on the ward at 3:40 o'clock, found the baby pale and crying, chest very noisy, heartbeats heard but regularity not assessed. The child immediately coughed and choked on some mucousy secretions. Ordered the child to be suctioned and (something) waiting for the suction tube. Suction performed in mouth, child became limp, heart stopped. The impressions are the

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interesting things. Resuscitation started and 25 called. There are four impressions, differential diagnoses, if you will: vagal reflex; arrhythmia; dig. toxicity; poor conduction system (something), I cannot read that I am afraid - vagal reflex, arrhythmias, digoxin toxicity and poor conduction system. Dr. Rowe also agreed that that was a rather fair set of diagnoses but he agreed that what had been written as four possible diagnoses may in fact be four different aspects of a single diagnosis, that is to say, digoxin toxicity.

In Volume 14 beginning at page 2499, line 12, I was asking him about the impressions set out by the resident on page 58 of the chart. I said:

" Impression, and there seems to be four explanations that are being canvassed by the resident for all of this: vagal reflex, arrhythmias, digoxin toxicity, and poor conduction system (something). "

I was no more able to read that than I am now, sir. Dr. Rowe was able to read it "associated with heart defect".

I said:

" That the resident who was present at the time of the resuscitation effort,

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" in canvassing the possibilities that occurred to him, has explanations for this event, included among them the possibility of digoxin toxicity.

A. Yes.

Q. Does that seem to be fair?

A. Yes.

Q. Indeed, Doctor, isn't it fair that all four of the possibilities that he canvasses may not indeed be four; they may all be one, may they not? Vagal reflex, I take it he is talking about some reflex action of what, the vagus nerve?

A. Yes. That is induced by the choking and so on.

Q. Yes. But is not digoxin also known to have an effect on heartrate through the vagal nerve?

A. Yes.

Q. Arrhythmias, aren't arrhythmias a symptom of digoxin toxicity?

A. Yes.

Q. And digoxin does, at toxic levels, affect the conduction system, does it not?

" A. Yes.

Q. And therefore is it fair to say these may not be four different possibilities but different aspects of the same single possibility? And, indeed, if his speculation or suggestion of digoxin toxicity is right, that may itself explain vagal reflex, the arrhythmias and the poor conduction, may it not?

A. Yes. "

So we have the impressions of the resident all of which as Dr. Rowe agrees are consistent with the one diagnosis of digoxin intoxication. So there is that measure of uncertainty about the cause of death of the child. The second reason for including this case in the group is that the physicians agreed that the death was consistent with digoxin toxicity and the chart indicates that the resident at the time whether in fact he was talking about four diagnoses or one, had a concern that digoxin toxicity might be the cause of the symptoms exhibited by the child, not just someone looking back over the chart who says, yes, that is consistent but a resident on the spot at the time who said that that strikes me as being possibly

linked to toxicity.

Again my submission is that these matters entitle you to find, if you choose, that there is reason to entertain I suggest a quite high level of suspicion that digoxin toxicity was involved in the death of Baby MacDonald.

The last child in the group, sir, is Real Gosselin. Once again a very short stay in the Hospital, admitted on December 17th, died at 3:16 o'clock the following morning, December 18th. He was three weeks old, he was on ward 4A and members of the nursing team were on duty. Again beyond question he was a very sick child. Dr. Hastreiter rated the severity of his anomalies at 8. Dr. Nadas described his prognosis as guarded. But for all that there was strong feeling on the part of Drs. Hastreiter and Mirkin that this was an unexpected death when it occurred and that there was no explanation for its having occurred when it occurred. That evidence, sir, is found in the evidence of Dr. Hastreiter, Volume 77, pages 6856-7, and from Dr. Mirkin in Volume 86, pages 8966-69 and in Volume 88 at page 9102.

You will recall, Mr. Commissioner, this was the case where Dr. Freedom wrote to his referring physician describing the death as one where there

the patient had a sudden deterioration in death for which he, Dr. Freedom, really did not have a good explanation. When he gave evidence, Dr. Freedom explained that the letter was written in reliance on his resident's review of the chart and his resident's report was that the baby had been stable up to the time of his sudden decline. When Dr. Freedom reviewed the chart himself sometime later he concluded that Baby Gosselin did not in fact have a very good response to prostaglandin, that his condition was more severe than he had been led to believe by his resident. On his own reading of the chart he said he did not find death surprising. As to the response to the prostaglandin I mention only this and this is not a complete answer, nor intended to be, page 27 of the chart discloses that on the autopsy the ductus arteriosus was found to be patent. The prime purpose of prostaglandin as we know is to maintain the patency of the ductus.

I accept Dr. Freedom's explanation of course but the fact remains that on his reading of the chart another experienced paediatric cardiologist, Dr. Hastreiter, shared the resident's view rather than Dr. Freedom's view, and he did conclude the death was unexpected and unexplained.

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Accepting all that Dr. Freedom has said by way of explanation there is still a difference of opinion between two experienced cardiologists as to whether this death is adequately explained by the course of the child as disclosed in the chart. If there is a question as to the cause of or explanation for the death, as in my submission there is, and if the death was indeed unexpected, as in my submission you could properly find, then the cause of death and the possible involvement of digoxin toxicity become live issues especially since the death was recognized as being consistent with digoxin toxicity. Indeed, even lacking any toxicological data Dr. Kauffman gave this death a digoxin score of 2 which indicates I suggest that he considers the death to be highly consistent with digoxin toxicity. My submission therefore is that there is a reasonable basis here for a finding that perhaps a relatively high level of suspicion is aroused by the death of Real Gosselin.

I come finally and briefly to the last group of children. Chronologically by date of death they are Lillian Hoos, Philip Turner, Kelly Ann Monteith, Antonio Adamo, and Frank Fazio. They are those in respect of whom in my submission

there is nothing of substance other than conformity with one or more of the circumstantial evidence to give rise to any appreciable level of suspicion that their deaths may not be attributable to natural causes. In some, I think for example Adamo and Fazio, a dissenting query is raised by one of the experts but in my judgement, for whatever that may be worth, the weight of the other medical evidence is convincing, and I shall not address these cases individually. They are a group of cases which, in my submission, provide no basis for a finding that the deaths were anything other than natural.

Those then, Mr. Commissioner, are my submissions as to the 36 deaths and as to the findings that in my respectful submission can or should be made with respect to each of them. I have not kept a box score or a running tally of the 36 cases or of my suggested classification of them. I can only say that as is obvious from the submissions I have made on a reading of the whole of the evidence there can be no doubt, in my submission, that several children came to their deaths on the cardiology wards of the Hospital in the epidemic period at the hands of someone who deliberately administered fatally toxic overdoses of digoxin to them. If that

view of the matter be valid then I say the tragedy is a double one. It is unspeakably tragic for everyone, the patients, families, hospital staff, and the public, that such things should have occurred to infants in any hospital let alone a great hospital of the stature and reputation of this one. It is tragic that there will, in my judgement, forever remain so much about the events of that period that we shall never know with any certainty. Inferences can be drawn, suspicions can be aroused and I have tried to set out those which appear to me to be legitimate and proper, Mr. Commissioner, but we shall never know how many children suffered deaths which did not flow from their clinical, cardiac or disease conditions. For many families the agony of uncertainty will necessarily continue. For the Hospital and the public it will continue to a degree. You in your report will I know provide answers and information which have hitherto been unavailable. You cannot answer all the questions, sir, all the questions raised by these troubling events. After a year of the most painstaking inquiry, it is plain that not all of the answers are available. I know that the submissions of all Counsel have been designed to assist you in your very difficult task. I hope that

the submissions that Miss Cronk and I have made will be helpful to you. I am most grateful to you, sir.

THE COMMISSIONER: Thank you, Mr. Lamek.

MR. SCOTT: Sir, the TV people want to get the mike moved over here. I don't want to stand that close to Mr. Lamek --

THE COMMISSIONER: I would be quite happy if we would adjourn and come back at 2:00.

MR. SCOTT: I want to set a good example, I am quite ready to begin.

THE COMMISSIONER: Fine.

MS. CRONK: Sir, just before we do that there is one housekeeping matter that arose during argument. You will recall during the discussion of the therapeutic and toxic ranges set out by Mr. Cimbura, you raised a question with respect to the ranges that I had suggested applied to heart muscle and described that way in the report. We now have had an opportunity to inquire further about those ranges and we are informed that - you will recall, sir, that it is item B on part of Exhibit 423, that is the list of ranges filed as an Exhibit.

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THE COMMISSIONER: Item B, yes.

MS. CRONK: It is Item B and it should be ranges for heart, not just heart muscle, if that be taken to mean ventricular muscle. They are ranges for heart.

The ranges for persons on digoxin therapy, the therapeutic range, we are informed by Mr. Cimbura, relate to reports that dealt specifically with ventricular muscle.

With respect to the toxic range, however, reports that were relied upon there in the literature applied to various specimens from the heart and he has therefore informed us that it is his view that the toxic range applies generally to heart specimens, while the therapeutic range applies specifically to ventricular muscle.

THE COMMISSIONER: Yes, all right.

MS. CRONK: Thank you.

THE COMMISSIONER: We will take five minutes.

--- Short recess

--- Upon resuming

THE COMMISSIONER: Whenever you like.

ARGUMENT BY MR. SCOTT:

Yes, Mr. Commissioner. It would be

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wrong to begin without, on behalf of my client, recognizing not only the heavy responsibility that you have undertaken in this Commission, but recognizing with gratitude the way you have discharged it under very great stress. Your demeanour and your conduct of the proceedings has, in my experience, been a model of the way a Commission should be conducted, but I think it is important to say that here, because it is not always possible to draw the right conclusion when you only light in for a moment or flick the tube for a second, but when you have been here, as we have now for a year and have witnessed your willingness to hear and to understand and your tolerance of all of us over that long, difficult and protracted period, I don't hesitate to say that we are satisfied, whatever the conclusions are drawn, that the public interest will be served. I just ask you to forebear for one more day, as you hear the submissions of the Hospital.

I also feel obliged to say of Mr. Lamek and Miss Cronk, that though there have been differences between us and there will be differences, as will appear from the argument in the future, that I am satisfied and wish to emphasize for the purposes of the public record that they have discharged their

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functions with great fairness and great fidelity to the Commission and to its work.

The task you have, as you know well, sir, is a difficult one and it is one that has exercised the parents of these children, the dedicated doctors and nurses and staff of the Hospital and has exercised the public, which has been concerned about the events in this very great institution, and it is right that there should be a full and open inquiry into those events, but this phase of the inquiry really has two component parts. The first is the hearing and the second is the deciding and it is my respectful submission to you that we should approach those two parts of Phase I in a slightly different way.

It was entirely in the public interest, in my opinion, in my submission, that the hearing should be as broad-ranging as your Terms of Reference dictated. It was important that the public, the parents, the citizens of the Province should have what I called a window onto the Hospital over this period of time and it was important that there should be no sense that any information was withheld or withdrawn or put out of public access and, therefore, the hearing process was as it should have been, as broad-

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ranging as you and your Counsel and the rest of us could make it. The Hospital, I think, co-operated fully in that respect to assure that any information that was required by Commission Counsel, or indeed by any other Counsel, should be made available, as quickly and as fully as possible, insofar as our obligations of confidentiality to patients and their parents permitted.

We have tried to conduct ourselves in the hearing phase, the hearing part of Phase I with that obligation in mind. As I said on the first day of this inquiry, the Hospital is as concerned as anybody with the exception of the parents, whose concern is deep-rooted in nature with what happened over this period of time and in the Hospital, as elsewhere, there are differences of opinion about individual cases, about individual matters, and all of us atthat Hospital look to your determination with expectation and hope that you can, in a judicial way, as we know you will, answer a number of the questions that are presented by the events.

So it was important that the hearing process should be as open and as full and as detailed as it could be and that, in my respectful submission, it has certainly been.

J 5

The second part of this Phase, however, is the deciding process. That is your function. You will recognize that your function is to decide, if you can, how and by what means the babies died.

The Court of Appeal has made claim that you can decide nothing more than that, but if you can answer the questions you are obliged to decide nothing less.

Now, in these cases the evidence is entirely circumstantial. There was one piece of direct evidence which might have been found in the evidence of Nurse Bell, but I think Commission Counsel fairly, in justice to her and to others, has made it plain that that evidence, because of differences of opinion about timing, cannot be the foundation for any findings. So that, put aside as Commission Counsel would have you do, leaves you with evidence that is entirely circumstantial in nature.

The components of the evidence are various, as you approach the cause of death. There is a scientific analysis to be made, which is founded almost entirely on the expressed opinions of experts who have reviewed the records as they understand them. There is, in addition, apart altogether from expressed scientific opinion, a series of imponderables with

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which you will have to grapple, which I can simply, at this stage, list.

First of all, the evidence respecting the toxicology of digoxin, its affect on a particular baby, the reliability of its measurement - pre mortem, post mortem and post exhumation -- all in the light of the fact that until these events very little was known about digoxin, except in a clinical context.

The second area of imponderables are the clinical factors about which you have again heard scientific evidence; the severity of the various diseases from which these young patients suffered; the course of the disease, as objectively or subjectively recounted by a clinician or others; the prognosis of the disease, that is to say the guestimate about the future course of the patient's life, which was again put before you in terms of scientific analysis or clinician's evidence, from which you may draw some assistance.

The third area of imponderables are the symptoms of the death process. Sudden, unexpected, consistent, inconsistent have been words that have described the onset of death in a number of these patients. You will recognize, I am certain, that each of these words contains a major subjective component

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which will vary from expert to expert, depending on how that word is understood or used. That is why there can be, as there is here, a wide-ranging spectrum of opinion, as to whether this death or that death was consistent with digoxin or inconsistent with it. It is not that doctors, clinicians and experts disagree so much, it is that there is a major subjective component that must be involved in this kind of analysis and it is a problem with which you are going to have to grapple, as you assess the evidence.

The last imponderable, about which I will say something in more detail, is the use or effect of so-called patterns, mortality curves, clusters, what Mr. Lamek calls the common threads that appear in the case of some of these deaths. That provides the kind of raw material with which you are asked to grapple, in order to determine, if you can, how and by what means the babies died.

Now, Mr. Ortved and I have some interests in common and I have asked him to deal with a number of those issues, so there will not be repetition. He will be going next I understand. He will be dealing with some matters with which I am not concerned, so at the end of his submissions I will simply adopt that portion of them that is appropriate

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in my client's interest, if you will permit.

I think it would be useful, or at least I found it useful, and I ask you, sir, to consider it, to establish some guidelines that you should have in mind in trying to answer this question and the question that is posed by the Order in Council, how and by what means that the babies died.

Before you even begin to look at the evidence what are the standards that you are going to utilize as a general rule in the decision-making process? I take the liberty of listing nine standards which, in my respectful submission, you should have in mind as you approach this task with the objective of applying them to each of the cases that is before you.

The first, and I will be dealing with some of them later in detail, but the first is this, is an admonition. I respectfully suggest that it is appropriate to take each death separately, as a unique event. You can begin to analyze them chronologically at the beginning or, as Mr. Lamek preferred to do, from the end of the period. I care not, but, in my respectful submission, each case has to be analyzed individually and it will do an injustice to the decision-making process to allow a finding in one case to weigh in another case. I will be expanding on that

J 9

in due course.

The second standard is this: the burden of proof. In my respectful submission you should decide, if you can, that is if there is evidence, the cause of each death on the balance of probabilities in relation to the evidence respecting that death.

THE COMMISSIONER: This is a slightly stranger case than the ones I am used to. I don't really have to decide on the balance of probabilities beyond a reasonable doubt or anything else. I can simply say that I think, I don't think very hard or I think very strongly. I can do any of those things if I want to. It is a luxury that I don't have in the ordinary case. I have to make a decision one way or the other.

MR. SCOTT: That is entirely true, but you wouldn't want to.

THE COMMISSIONER: There are some cases that I may be forced to. There may be some cases where I feel quite certain that the child died a natural death and may be some cases where I am somewhat dubious about it. Can I not say that?

MR. SCOTT: As a Commissioner you are entitled, as you have just observed, to say whatever you please and without giving any reasons, if that be

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your inclination, but we know that the purpose of appointing a distinguished judicial officer as Commissioner is because he will bring to the performance of his duties a standard of performance that does not permit him to say that on whim I think this or on whim I think that.

THE COMMISSIONER: I am not saying on whim. I just want to give an honest opinion. If my honest opinion is somewhere between one and the other why can't I say so if that is where it is? And I simply say --

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MR. SCOTT: Let me tell you why I think it would be unwise. Let's deal with the second standard against the backdrop of Mr. Lamek's argument, in his submissions, because he has dealt with certain categories. One of his largest categories is what I call, what he calls, the category of nagging suspicions, that I may not be able to conclude anything here but you have a nagging suspicion.

I take it from his submission that he wants you in your report to say, well I can't decide about the following babies but I have nagging suspicions.

Now, in my respectful submission that would be wrong to do. Not because it would be an unfair reflection of your mind, but it would not serve the public interest. The public interest, the interest of the parents it seems to me is knowing what it can, with assurance, and if you conclude on this evidence at a reasonable level of assurance that the baby died of natural causes, you should say so. If you conclude as a reasonable matter of assurance that the baby died as a result of foul play, you should say so. But to say I can't decide but I am nagged by a suspicion, is in my respectful submission (a) to bring no consolation to any member

of the public or parent, and it is really, respectfully, a non-judicial exercise in the sense that it may reflect the state of your mind but it is not the kind of determination that respectfully is anticipated when a Commissioner is appointed.

THE COMMISSIONER: Well what normally happens in judicial matters and is sometimes not appreciated by the Court of Appeal, is we set forth the nagging suspicions in the course of our reasons, and after it is all over you then say, after much reflection, you say at the conclusion it is a misfortune, or something of that nature. Now, that is what we do, that is what you would like me to do here but it really is no different from saying that I place Baby so and so in category A, which is one of deep suspicion. I place Baby B in a category of a somewhat lesser suspicion and Baby C in a category of natural death.

MR. SCOTT: I think, with the greatest of respect, Mr. Commissioner, that that would not be the appropriate approach to take. You are not obliged to answer a question where there is not an answer available to you, and Mr. Lamek has at the end conceded that, that there will be questions you can't answer because of the state of our knowledge,

or the state of the evidence. The forthright way to deal with that is to say, I can't answer this question with the kind of assurance that the public expects as I enter upon the exercise, and to give you my hunch, or my guess, or my nagging suspicion, is not what this exercise is all about. A fortune teller can give us that. What we want to know, and in my respectful submission what the public wants to know is on the evidence, and you can't create it, I mean, it is here, on the evidence can you decide and I will be submitting to you, sir, that there are many cases in which you can make a decision, but in those cases where the evidence is not sufficient to make a decision you must simply say so, because to let loose a suspicion does not put the controversy at an end and does not bring solace or comfort to anybody; whether it be parent, doctor, nurse, or any other user of the Hospital's facilities.

THE COMMISSIONER: It might be a reasonable disappointment if I don't, that's all, a legitimate disappointment.

MR. SCOTT: It would be a legitimate disappointment if the evidence does not permit you to deal fully and with assurance with each of these babies' deaths, I agree it would be a reasonable

disappointment to a lot of people and particularly to the parents of that baby. But if you cannot deal with it because the evidence fails you, in my respectful submission to deal with it in the absence of compelling evidence is to provide a consolation which is built on sand, and that you will want, with the greatest respect, to avoid that possibility.

Now I go further on my second standard in saying not only will you want to decide these cases, if you can, on the balance of probabilities in relation to the evidence respecting that death, but I go further and say that having regard to the seriousness and importance and impact of your determination, you will want to satisfy yourself that there is a full measure of assurance before you decide in the case of each individual case.

Now that is a principle that of course is recognized in the Courts and in your judicial work, it is recognized there because it is a good principle and a salutory principle, and a fair principle. In my respectful submission if it is good and salutory and fair in judicial work there is a presumption that this should be applied in Commission work.

For example, sir, you will know that in a criminal case proof beyond a reasonable doubt is

required; and in a civil case proof on the balance of probabilities is required. Now this is clearly an instance where proof on the balance of probabilities is open to you. You also know, and there are cases that we can present to you like Bernstein, that a balance of proof on the probabilities may vary with the impact, or importance, or seriousness of the determination that is to be made. This kind of determination, in my respectful submission, qualifies it in terms of impact and importance to the parents, Hospital and public, where you should assure yourself that there is a full measure of assurance before you decide. Because your decision is not going to be regarded by anybody as the mere musings of a Commissioner, it is going to be regarded by the public and should be regarded by the public as the last word, as the most likely correct determination that can be made on the evidence at hand.

THE COMMISSIONER: One of the things that would occur to me, what would be the difference in effect if I were to say, for instance, that babies A to G died of digoxin toxicity; and Babies let us say S to Z died of a natural death.

If I find the evidence is such that I cannot determine the cause of death for the remainder

of the babies, isn't that the same thing as saying I am suspicious?

MR. SCOTT: No. In my respectful submission it is not. What you have just stated is an accurate determination of the extent, or an accurate indication of the extent you have been satisfied by the evidence. In my respectful submission - the purpose you see of this Inquiry, in my respectful submission in a public sense is not to keep us all occupied here for a year, but to put an end to suspicion; to put an end to doubts, if we can, to nagging concerns, if we can. If we don't put an end to those things by simply proliferating a list where doubts continue to nag we put an end to those suspicions if we can by looking at the evidence and saying in the following cases I can make a determination with considerable assurance in which I hope the public will have confidence, in the other cases, I can't. By doing that the public will have obtained, what in my respectful submission it is entitled to have, the sense that a highly qualified Commissioner with all the assistance he could be given has heard the evidence and drawn what conclusions he can ; and that that is as likely to be as sound and as accurate and as assured a determination as any process we have can produce. That it seems to me is absolutely critical

to your assessment of your mandate.

If a list of suspicions was to be collated and we didn't have to spend a year doing it, the suspicions were right in the beginning.

THE COMMISSIONER: You are suggesting that I deal with the children as each individual child and say that each - let us say, taking an example say Onofre as an example, if I use the child Onofre and I say all of the things that everybody says as a whole and then at the end say I cannot reach a conclusion one way or the other with respect to Baby Onofre.

MR. SCOTT: No, I would be disposed to say you may want to review the evidence in any fashion, sir, you consider right so that the report will be meaningful for the public. But I would expect you to say at the end of the report about the death of the following babies I can draw conclusions with a measure of assurance, and with a measured judgment, they are the following babies. Then you are forced to say, as we so often are in life that with respect to the other matters I cannot draw conclusions with the same assurance. There is nothing surprising about that, I mean it happens to us all in life that there are some things in which we can achieve conclusions with a measure of servitude, and

some things about which we can't achieve conclusions with a measure of servitude. All I am saying is if you list the second category you will not be of any assistance, in my respectful submission, in doing the work that this Commission was designed to do. You will have ample to do it seems to me in deciding those cases in which the evidence is full and ample and complete without getting into other territories.

THE COMMISSIONER: Yes, all right then. If now is convenient, quarter past 2.

---Luncheon recess.

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---On resuming.

THE COMMISSIONER: May I interrupt for a moment, Mr. Scott, and dispose of this matter.

We have divided the matters to be investigated into two parts and have called them Phase I and Phase II. Phase I has been an inquiry into the cause of death of some 36 children who died in the Hospital for Sick Children between June 30th, 1980 and March 22nd, 1981, and Phase II will be an inquiry into the circumstances of the investigation and prosecution arising out of the deaths of four of those babies. The four babies were Janice Estrella who died in January and Kevin Pacsai, Allana Miller and Justin Cook who died in March 1981.

At the beginning of Phase I, standing was granted to the Attorney-General, the Metropolitan Toronto Police, the Hospital for Sick Children, five individual nurses and nurses' assistants, members of a particular team of nurses led by Phyllis Trayner and including Susan Nelles, a group of Doctors and a group of nurses of the Hospital for Sick Children (the latter together with the Registered Nurses' Association of Ontario), the Ontario Association of Registered Nursing Assistants and some ten parents or sets of parents of children whose deaths we were

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investigating, represented by four separate Counsel. There was little argument as to the standing in Phase I. I do not say that in retrospect any of those with standing should have been denied it. I do say, however, that it was always contemplated (by me at least) that the number of parties with standing would be considerably reduced in Phase II. Phase I is coming to an end and we are now faced with that problem of standing in Phase II.

The applicants are as follows:

(a) The Attorney-General and Solicitor General with respect to their departments, particularly the Coroners and Crown Attorneys.

(b) The Metropolitan Toronto Police.

(c) The Hospital for Sick Children.

(d) Susan Nelles.

(e) Phyllis Trayner

(f) Some 40 Doctors at the Hospital for Sick Children.

(g) 39 nurses at the Hospital for Sick Children and the Registered Nurses' Association of Ontario.

(h) The parents of infants Real Gosselin, Barbara Gionas, Phillip Turner, Matthew

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Lutes, Paul Murphy, and Justin Cook.

(i) The parents of Jordan Hines.

(j) The parents of Stephanie Lombardo and Amber Dawson.

(k) The parents of Kevin Pacsai.

It should be noted that three of the individual nurses and nursing assistants who had standing in Phase I did not apply. Nor did the Ontario Association of Registered Nursing Assistants. No one without standing in Phase I sought it in Phase II.

The law is easily stated. Section 5 of the Public Inquiries Act provides as follows:

> 5.-(1) A commission shall accord to any person who satisfies it that he has a substantial and direct interest in the subject-matter of its inquiry an opportunity during the inquiry to give evidence and to call and examine or to cross-examine witnesses personally or by his counsel on evidence relevant to his interest.
>
> (2) No finding of misconduct on the part of any person shall be made against him in any report of a commission after an inquiry unless that person had reasonable notice of the substance of the misconduct alleged against him and was allowed full opportunity during the inquiry to be heard in person or by counsel.

As was pointed out in Re Royal Commission on Conduct of Waste Management Inc. et al, the persons referred

to in sub-section 1 are not confined to those referred to in sub-section 2. Many persons might have an interest in the proceedings against whom no finding of misconduct could conceivably be made. It is also clear from Re Royal Commission on Northern Environment that the guiding words are "substantial and direct interest" found in sub-section 1. This does not mean an academic interest but it might encompass persons whose individual rights are or might be greatly affected. As Mr. Justice Linden puts it at page 419, "Essentially, what is required is evidence that the subject matter of the Inquiry may seriously affect an individual. If that is the case, then the individual is entitled to full participation rights pursuant to s.5(1)."

What is being looked at in Phase II is the police investigation (assisted or prompted by the Coroners) into the deaths,particularly those of the babies Estrella, Pacsai, Miller and Cook and the arrest by the police of Susan Nelles, and her subsequent prosecution by the Crown on charges of murder. That prosecution ended in the discharge of Miss Nelles after the Preliminary Inquiry. Miss Nelles has issued a writ against the Attorney-General and the Police Chief and others claiming negligence,

false imprisonment and malicious prosecution. I am, of course, not trying that action, but inevitably some matters will come up in Phase II questioning the propriety of the action of the Coroners, the Crown Attorneys and the Police. At the same time, we have reason to expect that the Police or others may give evidence of lack of co-operation in the investigation on the part of certain doctors, certain nurses or even of the Hospital. The Attorney-General and the Police specifically disclaim any allegation of conspiracy or combination to hinder or defeat the investigation or prosecution.

Before I deal with the individual applications, I should like to make comment upon matters of time and expense. Although I am deeply concerned about those matters and, although every added party inevitably protracts the hearing and almost every added party increases the cost of the Commission, I am determined that no one will be denied standing for those reasons. Nevertheless, the statute does not contemplate indiscriminate standing no doubt, in part, to avoid unnecessary delay and expense. The statute requires only that those having a direct and substantial interest be given standing.

One other thing I should mention.

Whether or not a person is granted standing he will, if called as a witness, always be entitled to Counsel. That has never been and is not now an issue.

It is clear to me that Susan Nelles, the Attorney-General (and the Solicitor-General), and the Police have a direct and substantial interest in Phase II and should be granted standing accordingly. It could be argued that the Hospital has no direct or substantial interest but it is unthinkable to exclude it from standing in either Phase since not only did all the deaths take place in the Hospital while the children were under the care of Hospital Staff and employees but also much of the investigation took place there involving many of the same people. The matter is not quite so clear for Phyllis Trayner and the Doctors, but I can foresee evidence being tendered which reflects upon them and they seek only to protect their interests as they might be affected. I am not sure that the protection of those interests constitutes "a direct and substantial interest" but I do not want the Commission to be placed in the position where Section 5.(2) of the Act might apply without the person having been represented. I accordingly grant them standing for the purpose of protecting those interests. Their Counsel do not seek it for any

other purpose.

The position of the R.N.A.O. and the individual nurses is more difficult, first of all because of the inclusion of the R.N.A.O. but more important because of the way the application was presented. Miss Kitely does not appear to confine her participation to her clients' "direct and substantial interest." She speaks of evidence relating indirectly to the conduct of her clients and declines to define what "indirectly" means. She also maintains that the R.N.A.O. has an interest because some of its members have an interest and the R.N.A.O. is concerned, if I understand her rightly, in raising or maintaining the standards of the profession. I am not going to refuse the individual nurses' standing but I do not intend to permit any participation on their behalf that does not concern them directly. Whether the nurses have "a direct and substantial interest" or not, the R.N.A.O. has none and the application on its behalf will be refused. The R.N.A.O. may, of course, assist its individual members in any manner it likes including financial assistance but it may not appear before the Commission in Phase II. The individual nurses may have standing to protect their individual interests.

That leaves only the parents. I treat all the parents alike even though Justin Cook and Kevin Pacsai were 2 of the 4 babies for whose deaths Susan Nelles was prosecuted. The deaths of all of the children are within the Commission's mandate as to cause of death and the deaths of the other children were inevitably a part of the investigation and, in many cases, were introduced as similar fact evidence in the prosecution.

The parents' position is very difficult and evokes the greatest sympathy. They are, of course, immensely interested in the investigation and prosecution of the killer or killers (if there be any) of their children, but I cannot find that their interest (in a legal sense) is any greater than that of the public at large who are represented by Commission Counsel. It may be a delicate distinction but I held in effect that there was a direct and substantial interest for the parents in Phase I. One might say that the interest was largely emotional but it was nevertheless direct and substantial. They are the only representatives of the babies themselves. The interests of the parents in the investigation and prosecution is also natural and understandable but it is not in my view either a

direct or substantial interest within the meaning of the statute. The legal interests of the parents cannot conceivably be affected either by the Inquiry or the Report.

I must, therefore, deny the application of the parents. I do so with reluctance recognizing as I do the very valuable contribution that their Counsel have made to the proceedings in Phase I. I assure the parents that Commission Counsel Will be happy to consult with them or their Counsel at any time as to the conduct of the Commission in Phase II.

Now, there are copies of that available for anyone who may want it.

Yes, Mr. Scott.

MR. SCOTT: Mr. Commissioner, before lunch I was dealing with the second of the standards that I present to you as the guiding standards by which your function in the decision-making phase of this Inquiry should be governed and there was some interchange between us with respect to the second standard. I just want to suggest two or three additional reasons that persuade me that that is a standard that should be applied, namely, that you should report on each of the deaths on the balance of probabilities in relation to evidence respecting

that death but make no report about matters on which you cannot draw a significant conclusion.

You will remember, sir, that the history of this matter is that after the deaths and the intervention of the Coroner and Police an investigation occurred, a long preliminary inquiry occurred, and at the end of that before the appointment of this Commission there were suspicions about whether all the evidence was out and about what facts could be ascertained from that evidence.

It was really those suspicions, in my respectful submission, that led the Government of the day to appoint your Royal Commission.

The purpose of that appointment was not to proliferate the suspicions, it was insofar as possible to put an end to them by findings made on the basis of the appropriate assurance that the evidence supported them. That is why I say to you that insofar as you can make those findings you should do so and you will be given help by a number of counsel in drawing your attention to the facts that justify the findings, but it is not appropriate nor in the interests of anybody nor within your mandate to deal with nagging suspicions or doubts or to deal with cases where the balance is wanting.

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There is a second reason for that. Much of the evidence you have heard and much of the argument based on it will relate to what can be known about digoxin, its impact and its measurement in these cases when we are, even in 1984 at the fringe of scientific knowledge. You would not, sir, I am certain want to recite a nagging suspicion or to assert that so and so's death left you with nagging suspicions when it might be that over the passage of time science will put an end one way or the other to that nagging suspicion.

Therefore I say to you it is not within your terms of reference, except technically, which is not an appropriate approach, that you will deal with the kinds of categories that Mr. Lamek has set before you. Also of course it would be unfair to the parents. If you can conclude that one of these babies died as a result of foul play you are obliged to say so even though that may bring considerable heartache to one of the parents involved. But if you cannot make that conclusion what possible purpose can it serve by saying it is not proved but "I hae me doubts" - as Miss Thomson would say. No purpose would be served by that.

THE COMMISSIONER: You may be right,

that is all I can say, but the public perception may be the opposite. It may be that I should do my best to try to resolve it but if I cannot resolve it I should at least say that some of them - if we take the example of Baby B, Baby H and Baby X and Baby B I say clearly suffered from digoxin toxicity deliberately administered and Baby X clearly died of natural causes and Baby H is the one in the middle, the one I have some doubts about. What do you want me to do, just not mention Baby H.

MR. SCOTT: The perfect illustration I think is the case of Baby Onofre that Mr. Lamek dealt with this morning. There is evidence that supports both propositions, little to choose between both propositions. I know, sir, that you will apply your mind to determining whether a choice can be made at a level of assurance that justifies decision-making and if it can then you will make it and we will be confident that the issue was gripped and resolved on that kind of standard. But if you cannot make the decision because the evidence fails that is all that is required to be said.

There may, when we know more about science, be more evidence and it would be wrong if you said, well, I cannot decide but I want you to

know that if I could decide I was leaning this way or that way which is what having a nagging suspicion means.

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THE COMMISSIONER: Supposing the suspicion is a little more than nagging? Supposing the suspicion is fairly close to assurance?

MR. SCOTT: Well, in my respectful submission --

THE COMMISSIONER: That is a burden -- the balance of probability is burdened if I were to decide on that basis that the baby was or was not the victim of a deliberate overdose of digoxin. I say that I cannot do that and I shouldn't do that.

MR. SCOTT: No. Mr. Lamek, in his submissions, has a series of categories. One category is where he says that you can safely conclude that death resulted from foul play and there are seven or eight babies that he places in that category. Then he deals with five, where he says you can safely conclude that natural causes was the cause of death. I have no problem with that approach to the matter. I may differ and do differ about some of the babies he places in those categories, but he says to you, as others will say to you, the evidence is there to justify this conclusion at a secure level of assurance. If you agree you can say so, but then he comes down to his other categories which are various. He says there is a nagging suspicion in one, there is a grave

suspicion in another, which I presume to be, but I don't know whether it is a more severe suspicion to be afflicted with than a nagging one but it strikes me as a little higher on the scale. We may not have had to deal with it, but in my respectful submission your obligation is to decide what you can and Mr. Lamek, in effect, concedes that at the end, when he says there are certain questions you won't be able to answer. It is not your fault, it is not his fault, it is life, that there are certain questions that you won't be able to answer and if you can't answer them it would be an injustice to try by asserting your hunch or your suspicion.

THE COMMISSIONER: It is more than a hunch or a suspicion in many cases. There are factors which seem to outweigh the other factors, that is it is a decision judges make all the time, as to they have to make a decision one way or the other, so they make a decision one way or the other. I thought that the luxury of this particular job I had now was that I could bare my soul and say, instead of saying I have come down on one side or the other, I can say that -- I am just arguing with you now.

MR. SCOTT: I understand and I am grateful.

THE COMMISSIONER: I can say that I am not sure about this one, but I think that it was digoxin toxicity or it was an actual death.

I think on the whole I have reached that conclusion. It is not just a hunch, it is more than a hunch because I spent a year of my life on this hunch.

MR. SCOTT: In my respectful submission, sir, and I won't repeat it, it is a luxury that you don't have. Even if you had it, in my respectful submission, it is a luxury that you would not want to utilize and the terrible risk is that that luxury may be outstripped by scientific knowledge. If, for example, you recognize how much we have learnt about digoxin, partly through this Commission and the experts who have given evidence before it, in three years that we didn't know in 1981, it may be that some of the areas where you were unable to make an assured decision will be cleared up in two or three years.

THE COMMISSIONER: The thing that I am really worried about is not the digoxin problems. I can decide that on the basis of digoxin as best we know. It is where there is no toxicology.

MR. SCOTT: I will be coming to that,

because I have a standard to deal with that.

THE COMMISSIONER: Those are the most difficult. I either have to accept the present state of digoxin knowledge or not.

MR. SCOTT: As Your Lordship, as you Mr. Commissioner, know, a judge whether he is deciding alone or with a juror, he often uses, in his mind, or verbally, the image of the scales to discuss the balance of probabilities. He describes the situation in which the evidence is put in one's hand and the evidence contra is put in the other hand. If the case is made out that is shown by one hand tipping below the equilibrium. If the case is not made out the hands remain in balance, the judge tells the jury that they cannot decide the case. Why? Not because they don't want to, they have ideas, they have theories, they have concerns. They can't because it is regarded as risky.

THE COMMISSIONER: I understand that. And the criminal case, of course, is a great deal riskier and you have to have a certain standard. The analogy with the jury doesn't quite fit, because what I am saying is that if the scales are even then obviously in that case I can't say one way or the other. If the scales are leaning, in my view one way or the

other, all I was asking is why I can't say that is so, because that would be the balance of probabilities. Those are the instructions we give to a jury in a civil case.

MR. SCOTT: If the evidence satisfies you that a baby died as a result of foul play you have an obligation to say so. If you are not satisfied, in my respectful submission, you have no right, except the technical right that your Order in Council may give you to express an inconclusive view, and what I'm saying, in respect of the second standard, is that is why this Commission was set up. We had inconclusive views before and it was set up in the hope that by this process you could form a conclusive view on some, if not all of the deaths.

Now, I should perhaps go on. The third standard that I suggest and I take confidence that Mr. Lamek shares this, though he didn't explicitly say so and that is that you will want to report on nothing that does not clearly relate to the cause of death.

Now, the Court of Appeal has given you an assist in this direction by indicating precisely that in one area you will not report on names, but I go further and say how and by what means the babies

died, means that and nothing more.

The Dubin Commission has conducted a thorough investigation of a host of other matters and I know, sir, from what you have said during the course of the hearing, as we have got further and further afield in the evidence from day to day, that you will not want to express an opinion or find a fact that does not clearly relate to the cause of death, because, one, you have no mandate to do so; two, it would be dangerous to do so when those issues have not been adequately and fully probed in this inquiry.

Now, the third --

THE COMMISSIONER: That is the third.

MR. SCOTT: That is the third, yes, you are quite right.

The fourth is this and you adverted to it: that where there is no evidence of digoxin toxicity, you will not want to --

THE COMMISSIONER: By no evidence, you mean no toxicological evidence? Is that what you mean?

MR. SCOTT: That is what I mean.

It will be unsafe to find the intervention of digoxin and foul play. In other words, if there is

not toxicological data, and I will be coming to deal with the cases later in some other standards, it just is too risky to make findings with respect to babies where there is no toxicological data.

Now, you are just ready for me, but let me make one other point that I will be coming to.

Mr. Lamek says, in those cases, well, you can have regard to whether they died at night and whether they died on 4A and 4B. I will be coming to that. In my respectful submission that is to put the cart before the horse. If there is toxicological data, you can assess it with all the other factors and make a determination. If there is not toxicological data, in my respectful submission, it is prudent not to make any determination in those cases.

THE COMMISSIONER: That pretty well leaves -- except for the children, of course, who were not prescribed digoxin, that leaves all the others before March out of the picture. Estrella, I suppose, is the only other one.

MR. SCOTT: Yes.

THE COMMISSIONER: Estrella and --

MR. SCOTT: Yes, that's true.

THE COMMISSIONER: -- the three other

babies.

MR. SCOTT: When we come to those you will want to examine whether there is any other evidence that they were killed by the intervention of digoxin and what I am saying to you, respectfully, is in the absence of that evidence of toxicological data there is going to be very grave difficulty to the point that it, in my respectful submission, is impossible to characterize those deaths in the way Mr. Lamek asks you to do.

Now, I understand well your inclination to be as helpful as you can by answering as many questions as you can and that is a purpose that we all logged, but if the factual foundation for your answers is not there in some rational way --

THE COMMISSIONER: I won't be recognized, I know that.

MR. SCOTT: It clearly won't be recognized, it won't do justice between the various interests in the inquiry.

THE COMMISSIONER: Well, I often don't do justice in life and I have been doing it for years. I have to reach a conclusion, because this is what I am sworn to do, to reach a conclusion on every lawsuit that comes in front of me. I come to it and

then fortunately there is a Court of Appeal. And now there is a Supreme Court of Canada.

MR. SCOTT: Mr. Commissioner, I have appeared before you many times in other forums and you have never been driven to reach a conclusion. You have been driven to do justice between the parties and that sometimes means reaching a conclusion, but there are some cases where you can't reach a conclusion, where the evidence fails and you don't say the evidence fails, but I have got to make a conclusion anyway. Your conclusion is the evidence fails and you say it and that is it and move on.

What I am saying is where there is no toxicological data we are in the world of gossip. We are not in a world where there is any data from which you can make and finding and to do justice and to draw a conclusion is to say that I cannot draw a conclusion on this material.

THE COMMISSIONER: Just think of it. That, of course, is what happened at the Hospital for Sick Children. No one did draw a conclusion because there was no toxicological evidence, whatsoever, until Pacsai came along and then they had some and they got worried and then they began to get suspicious and then took some more and that is what happened. If though

it had been brought clearly to the attention of the doctors in the Hospital for Sick Children, and better still, to the management and to the Board of Trustees that there was a tremendous increase in the number of deaths in one particular ward, with one particular team of nurses, at one particular hour of the night would it not then, would it not then have perhaps led them, at least to further investigation? This is what the Dubbin Report is saying. Would that not be a factor that they would have taken into consideration at that time in determining what they would do?

MR. SCOTT: Whether that is a factor that they would take into account is beside the point. The reality is that in these circumstances the amount of evidence you have is restricted and we can't roll ourselves back to December and September and July and try and wish, as we might, we can't create toxicological data where it doesn't exist.

It would be better if every hospital in the world, including ours, had been doing these studies two or three years ago, perhaps, in the sense that you might have had more data, but the question isn't what do we do in the absence of data, the question is to recognize that the data isn't there

and then proceed to decide what you can.

Now, Mr. Lamek has a formula to get around that major evidentiary problem and I will be coming to it. He deals with the analysis of the way the babies died and the fact of Cook colouring all the other cases and so on, but my proposition is that you cannot find that a baby died by the intervention of digoxin in the absence of toxicological data with the kind of assurance that you want to have in order to make your report to the public.

Now, the next standard is, and this follows from the last: on the scientific evidence before you the only acceptable evidence that is toxicological are readings from serum or fresh or fresh-frozen tissue.

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Now to that I add one qualifier. With respect to the exhumed babies, the evidence of a number of the experts was that the digoxin readings with exhumed tissues, or body parts produced was qualitative only. In my respectful submission you can use it in that way, but you can't use it in any other way. The difficulty I had when I heard my friend Mr. Lamek, is notwithstanding Dr. Kauffman and those witnesses who kept saying, all right, it is qualitative only, I concede that, but it is corroborative. If it is qualitative only it tells you only one thing, that digoxin was administered at some time, and the experts will tell you what time frames, but it can't be used in any other way.

THE COMMISSIONER: Well, I didn't understand him to say it was corroborative. The experts can't tell much from exhumed tissues or fixed tissue because of the uncertainties of the science of the art, but they can tell us that certain - some of it seems to be so large as to be outside the literature that they have. Now it is not enough by itself but surely that plus other things might, and that is what proof is, is it not?

MR. SCOTT: Let us leave the plus other things for the moment if I could and just deal

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with the toxicological data. I have suggested to you that it would be imprudent to act in cases where there isn't that data.

THE COMMISSIONER: Yes.

MR. SCOTT: I am summarizing correctly, I think, and I will turn to it later, the evidence of at least Dr. Kauffman that in exhumed tissue that can serve one purpose, and I say it for that purpose but don't use it, even if it is just a makeweight on the scale, don't use it for a purpose that the experts say it cannot be used for.

I think I am down to standard 6, and No. 6 I suggest to you that in weighing the evidence if there is one expert, let us say for these purposes outside the treating clinicians in the Hospital for Sick Children, who casts doubt on digoxin intervention as the cause of death, it is unsafe and imprudent to find digoxin as the cause, or digoxin intervention as the cause of that death.

THE COMMISSIONER: It may well be imprudent, it is not unsafe, it may not be the right conclusion but surely I have to make a conclusion, and if I reach the conclusion - if I see one doctor and I accept his evidence and I see another one and I don't accept his, surely I have to say the one that

I accept and act on it?

MR. SCOTT: Let me deal with it stage by stage, Mr. Commissioner. We have agreed it may be imprudent for the purposes of our argument to act on it, but I say that it is unsafe because while you cannot convict or impose civil liability everybody is aware of the public impact of your report and that is why you will want to reach your conclusions with assurance.

THE COMMISSIONER: Yes, but you can't be right on this one, you can't be right on this one because there may be one that this didn't happen in this case, there may be one totally professional idiot who comes forward here and proceeds to tell me that black is white, and everything else is pink and I know that is wrong, even I know that, but surely I can discard his evidence, can't I?

MR. SCOTT: It is not the same. First of all I think you will agree with me that there were no professional idiots who gave evidence before you, there may have been some at the counsel table but there were none in the witness box. So we don't have to deal with that theoretical problem. What if I understand you you are adverting to is the problem of selecting between two competing experts of more

CC.4

or less equivalent stature in their profession. It has been a problem that respectfully has always caused difficulty in the administration of justice. It stems from the problem in which two people see, non-experts, see a collision at the corner of Bloor and Yonge, one says the light was red, the other says it was green and you have to assess which of them to believe in order to decide the case. You look at their vantage points as they stood on the road; you look at their age; the quality of their eyesight; whether their attention was distracted; whether they have good memories; a variety of factors like that, you look at all those things and you say I prefer the evidence of Witness A to the evidence of Witness B because of these factors. Everybody understands that that is an appropriate mechanism for deciding that kind of problem.

The problem here is not of that dimension. In the motor accident case you wouldn't for a moment say I believe the evidence of Witness B because I would prefer the light to be green. Or you wouldn't say I prefer the evidence of Witness B because I would like the plaintiff to win. You look in the testimony for standards which you prefer.

Now the trouble is, when you come

to the kind of scientific analysis we have had in this case and when you look at the learning and scholarly capacity of virtually all the witnesses who gave evidence about it, and I leave out our clinicians for the moment, I want you to deal with the people who came to help you from faraway places and analyzed the problem. If they cannot agree how can you decide with the level of assurance that is required you simply in my respectful submission cannot. For example, to take an example, if you look at Onofre, the case that was discussed this morning, in Onofre, Dr. Kauffman said there was insufficient data to allow any commentary about digoxin in this child.

THE COMMISSIONER: He sort of accepts your argument, Dr. Kauffman always did --

MR. SCOTT: You could have fooled me when I was examining him.

THE COMMISSIONER: Mr. Cimbura I think is on your side too, they haven't got any readings and they don't want to go out on a limb.

MR. SCOTT: Can I just finish the scientific problem, we are not talking about clusters, or the wards, or other factors that you may want to consider later. We are talking now about my

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proposition that where there is an independent expert, that is an expert who is not a clinician at the Hospital, outside, who casts doubt on digoxin as an intervening cause, it is unsafe to find to the contrary. Onofre is a perfect example because there you have Dr. Kauffman who says I can't draw any conclusions in this case. You have Dr. Mirkin who says that the cause of death was either arrhythmia or infection. You have Dr. Hastreiter who says it was probable murder. Now those three experts are eminent, highly qualified, highly skilled professionals. They are giving opinions on data that is presented to them, in this case identical
(2) data, and they cannot agree on the conclusion.

Now in my respectful submission, confronted with that, you simply have to say if the experts cannot agree on whether digoxin played a role in the death of this baby, I can't find that it did, and it is no answer to say well, I like Dr. Hastreiter better because he has a certain amount of charm and I have a leaning to people who come from Chicago anyway. Or I like Dr. Kauffman because he struck me as being more precise, or what-have-you, those are irrelevant considerations when you are dealing with the expert testimony at this level on

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the cutting edge of a science. I mean, if they were talking about some elementary scientific principle you might be able to say, oh well, Dr. So and So is over the hill, all the textbooks are inconsistent with what he said and I am just going to have to avoid reference to his evidence. That is not what we are talking about, we are talking about three experts on the frontier of a new science who cannot agree and if they cannot agree, that is not your fault and it is not my fault. It is that there is no agreement, and if there is no agreement how can you make a finding? The answer is, you can't.

Now, that is not your fault, that is simply a characteristic of the nature, the incredibly complex and difficult nature of the problem and your answer has to be unless there is something else that I can't cut that Gordian knot, I can't say, I, even a Judge and a Commissioner, I cannot say that Dr. Hastreiter's opinion is better than Dr. Kauffman's. I am not a licenser in the Illinois medical exam, most of us didn't understand half the language they used in the process and you have simply got to face the reality again that confronted by that kind of difficulty you cannot decide.

That is not your fault, if you take

CC.8

Onofre, maybe you have a nagging doubt. If you say well, Dr. Hastreiter has the same sort of nagging doubt that I have, although he goes further and calls it probable murder. I would just say I accept his evidence. Well then, what are you going to do with Dr. Kauffman who says there isn't evidence from which you can draw any conclusion. It leaves you, sir, with the greatest of respect, in an impossible position if you propose at this stage, on critical matters, to make a determination except where there is a high level of consistency between the experts.

Of course, as I have said before the danger is not only that the wrong result may be achieved, but that in time we may understand why it is the wrong result.

Now the seventh standard, and this is perhaps why this gets more difficult for me and not easier, but it is important to get these out because the manner of deciding these cases is going to be as important in my respectful submission as the conclusions that are drawn. You will want to be very careful about subjective analysis, and by that I mean analysis of individual cases that is based on either a person's, either an observer's or Commission Counsel's analysis of what he sees.

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Mr. Lamek says that in one case that death was sudden and unexpected, that is what he draws from the record. Sometimes one of the words or both of the words are even there. Then Dr. Phillips says it was somewhat sudden and unexpected. You can see that we are talking about, in highly subjective terms, we are not talking about concrete things that can be seen, we are talking about things seen through the observer's prism into which he invests a lot of subjective analysis.

I mean the whole problem, for example, of talking about consistentor inconsistent with the clinical condition. I mean who really knows what that means? Now if you have toxicological data you don't have to be troubled about that so much, but if you don't have toxicological data, in my respectful submission you cannot be moved by an analysis about whether the decline was precipitous or not. That is simply not going to help you decide that question, because it is so subject to subjective views of what those terms mean.

Now the next standard is in a way the most difficult for me but it is one on which Mr. Lamek makes much of his submission to you.

That is, he refers to what one calls the common threads of the case. When he does that he is inviting you to see a pattern over the nine months and take the presence or absence of that pattern in the final stages of any baby's life as a fact bearing, or not bearing, on the cause of that baby's death. That is exactly what he is doing, he uses it as supportive or as corroborative. I think in the end he conceded where only that pattern existed you cannot draw the conclusion so he uses it as corroborative on some other evidence.

In my respecful submission, that is wrong and is not admissable as a technique of finding facts. The pattern, if there is a pattern here and there may be, the pattern if any will be found as a result of your findings. In other words, the pattern, whatever it is, will be a result of your findings and will not be the cause of it. To make the so-called pattern the cause of your findings or contributory to the cause of your findings is entirely to put the cart before the horse.

THE COMMISSIONER: I think we understand what his position is. He starts with Justin Cook and says that Justin Cook died of digoxin toxicity. That is an extraordinary event. That is something on which we have to put some reliance. Obviously someone was

capable of destroying this baby in March. If then we look at statistics and statistics show that there were six times as many or more than that that died in the ward as normally do and they all died in those circumstances that tips the balance I think is the way to put it and we do not now go around looking at the matter alone. You look at it in those circumstances, one child did die of digoxin toxicity deliberately administered and you wonder whether - perhaps it happened with the others.

MR. SCOTT: The wondering is quite all right. It is using that fact as evidence in the other cases that in my respectful submission is wrong.

Let me put it to you this way. We will be coming to Justin Cook and I don't disagree very much with the conclusions that Mr. Lamek asked you to draw in the case of that baby. Let me get that straight. But let us assume that he is right, that Baby Cook died as a result of a deliberate, conscious overdose of digoxin, unprescribed and let us assume that you use that fact - what is the fact - the fact he asks you to draw from that is --

THE COMMISSIONER: There is one other fact - there is the fact of the death and then the

fact of a tremendous increase of deaths all taking place in a certain time and certain circumstances.

MR. SCOTT: Let me deal with it if I may, sir. They both present the same problem and the present it in a slightly different logical way. Let us deal with the death of Baby Cook and I accept for these purposes Mr. Lamek's conclusion that can illustrate that that was achieved by digoxin intervention and he concludes from that and I accept this for the purposes of argument that there was someone there on staff who administered that digoxin. There is a death --

THE COMMISSIONER: You won't get me to agree to that, but you go right ahead.

MR. SCOTT: You might have a nagging suspicion; but that is his theory. If you do not agree with that theory you cannot carry it anywhere. His theory is that somebody administered digoxin to Baby Cook and his theory has to be that it was someone in the Hospital because if I were able to show you that the person who administered it was the paper boy who came in just that day and had never been there before that would be end of his theory. So his theory has to in fact include a notional naming of names and then he says other babies died

and the death of Cook is a fact that I can put in the scale when those other babies died. What he is really saying to you is the fact that there is a person who would do that on the ward is a fact I can put into the scale when another baby died. That, in my respectful submission, is not logical or admissable because what do you do if you were wrong about Cook? You have just started an escalation in which the death of each baby becomes easier to assign after you have decided the death of the baby before. He does not even begin at the beginning of the cycle, he begins at the end of it.

In my respectful submission it is wrong in principle to proceed on that basis, that if there is evidence in the case of any babies, toxicological or other evidence that you might rely on that they died as a result of a digoxin overdose you will seize on it, rely on it, find on it, but one of those facts cannot be the fact that other babies died in that way. It just --

THE COMMISSIONER: I am not sure of that. It may well be as a principle of criminal law that it should not be. Every day we do this sort of thing. If there are a series of dubious matters and all of a sudden something comes to light

that we are sure of then it does put a different light on the dubious matters. This happens to us every day. This may not be a good analogy but let us say an employee who we find some day with his fingers in the till and we have lost money out of the till before, we are naturally suspicious that he was responsible for that. That may be an inappropriate analogy but that is the way our minds work.

MR. SCOTT: It is an absolutely perfect analogy and the way you used that fact of the other incident is it goes to identity. That man cannot deny that he had his fingers in the till because you can demonstrate that he had his fingers in the till on another occasion. But we here are not concerned with identity. We are concerned with how the babies died.

THE COMMISSIONER: That is right.

MR. SCOTT: It was not for nothing that in trials all over this land when you are dealing with a motor accident case you say to the defendent whose car hit yours, have you even been in another automobile accident? Everybody jumps up and says you can't ask him that question. You say why not, it is a wonderful question. You cannot ask that question because everybody recognizes that there is

no real connection between the answer to that question and what has to be shown in the case, and that is exactly what we are dealing with here, only here it is even more dangerous because of the risk of being wrong in the Cook case and because you use the mortality tables to help you deal with the Cook case and then you use the Cook case and the mortality tables to help you deal with the preceeding cases.

In my respectful submission it is simply not a permissible technique. It is illogical. You would want to assure yourself that you are not a victim of that kind of logic. The connection that is essential in proof is simply not demonstrated if that is the evidence.

The last standard, I respectfully submit that you have to bear in mind, has to do with the CDC report. The CDC report is useful to use, in my respectful submission, for one purpose at this stage, the Court of Appeal having spoken, is useful to you for one purpose and one purpose only and that is to show that over a given period of time there was increased mortality on wards 4A and 4B. That is in the words of the report that more babies died in this period than in comparable periods.

THE COMMISSIONER: And that there is no explanation for it.

MR. SCOTT: And that there is no explanation for it. Now Mr. Lamek is going to have you come to an explanation which nobody else can draw, but that is something else. All I'm saying is that the CDC report simply says that these are the numbers and about that there has never been any doubt. We know how many babies died and we can compare as Dr. Gilmur-Bryson did and our charts did and all the rest of it with other periods. The reason the CDC report was regarded as of interest by the Commission or the Counsel before it was that prior to the Court of Appeal decision it was thought that it might have significance for another purpose. Now that purpose in terms of reporting is not a purpose which can concern us. Therefore all you can draw from the CDC report is that there was a higher mortality curve than there had been on this ward before.

In my respectful submission that takes you some distance. That is a useful fact to know. Our own epidemelogists have confirmed it by their own report as you have seen and it is demonstrated. But if you look at our charts, Mr. Lamek makes some fun (good-natured fun) the first thing you see is

that throughout this Hospital in all the sections which were graphed there are great swings of mortality - none as great as March - I think one as great as March --

THE COMMISSIONER: None as great in any area as the difference in wards 4A and 4B over 5A -- this was the greatest swing that was found anywhere.

MR. SCOTT: I think in the succeeding year in fact there was another swing in the ICU that if not as great was almost as great. But the only point I make of it is that our charts tell you what the CDC report tells you which is that there are swings. That is a factyou are entitled to know and do know, but it is not a fact that points to anything that is useful to the inquiry.

THE COMMISSIONER: It depends on the nature of the swing. Surely there comes a point when coincidence can no longer be accepted. Let us say if 10,000 babies died in one day and none died for a year -- you can speak of clusters as much as you like but I would be looking for a common bond.

MR. SCOTT: Mr. Ortved will be dealing with clusters but in my respectful submission it is more refined than that. If 100 babies died in one day and none died on the succeeding day you would know that something was going on that led to 100 babies

dying on one day and none the next day, but that is all you would know. You would not be able to conclude that any of those 100 had been murdered. You would simply know that 100 had died. To try to use that material to show not only that they died, which is what is illustrated, but to show how they died is simply inadmissible. It cannot be used in that fashion. It is the conundrum of this case, because the whole exercise from the beginning has been our effort to grapple with two competing kinds of information, one toxicological information with all the problems we have associated with that and the other statistical information. That is what makes this case a complete novelty that would never occur in a courtroom because if you were in a courtroom concerned about the cause of death and you wanted to bring a study about how many had died over the last year, the judge would say, get out of here, that has nothing to do with it, that is adding apples and oranges.

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EE/RD/ko

I want to show that this defendant has been in five previous accidents. That has nothing to do with this case and that isn't simply because judges are contrary. That is because judges apply a logical, fair rule that has been perceived over many years as one of the best tools at getting at what really happened and that, in my respectful submission, is why you can only make that kind of limited use of the --

THE COMMISSIONER: Atlanta Report.

MR. SCOTT: The Atlanta Report.

THE COMMISSIONER: What do you think about the time? You said something about wanting to get away. Do you want to get away or leave at this point?

MR. SCOTT: You seem, Mr. Commissioner, keener on it.

THE COMMISSIONER: No, I want to carry on forever.

MR. SCOTT: I am going to ask if we can stop until tomorrow. There is one thing that I would like to do. We have prepared a summary of the 36 babies and I don't have copies for everybody. To be correct, I don't have copies for anybody but you and me, so we can have a full dialogue about this, and one for Commission Counsel.

EE 2

THE COMMISSIONER: I was just thinking at the moment of the question of a break, that is all.

MR. SCOTT: I am going to ask if I can stop for the day.

THE COMMISSIONER: I see, all right.

MR. SCOTT: But let me, if I may, before we go ahead, tell you what this book is.

THE COMMISSIONER: I had better take the book then.

MR. SCOTT: There is an index at the beginning and it lists all the babes from Woodcock to Cook in chronological order and there are tab numbers and if you turn to Tab 1, for example, you will see the name of the baby, the date of death of the baby, the time, the age at death and then a page or two, which is a summary prepared by us of the evidence that relates to that baby.

Now, we think the summary is as accurate as we could make it. The back-up material, that is the four or five preceding pages, are notes to the evidence that relates to that baby given by each of the doctors and you will see, for example, in the case of the baby, Woodcock, if you turn to the third page we have notes of where Dr. Rowe's diagnosis appears in the evidence, his characterization, a summary of it, a note

EE 3

of the evidence, his comments, and then we deal with Dr. Fowler's evidence, Dr. Freedom's and the other doctors who gave testimony about that baby, all the way through.

Now then, at the end we have a note of the toxicological data, if any, that exists in the case of that baby.

THE COMMISSIONER: I am impressed.

MR. SCOTT: On the last page we have the evidence of the pharmacologists in the event that they gave evidence with respect to the baby in question.

Now, I could do, as Mr. Lamek attempted to do, which is to go through each of the babies and summarize this material for you, and for the purposes of the record, but I think really it is more useful to have it in this form and I would like tomorrow, if I could, to draw your attention to certain parts of it as I go into the heart of our submissions.

THE COMMISSIONER: All right.

MR. SCOTT: Having been so good and started so early I wonder if we could now stop for the day?

THE COMMISSIONER: Yes. Certainly. I don't know whether to thank you or Ms. Thomson.

EE 4

MR. SCOTT: Thank me.

THE COMMISSIONER: Or both of you. This is a very valuable document.

MR. SCOTT: If the facts are to be shared with Miss Chown or Ms. Thomson I will pass them on.

THE COMMISSIONER: All right. Shall we start tomorrow at 10 o'clock? You will be on deck again tomorrow at 10 o'clock?

MR. SCOTT: Yes.

THE COMMISSIONER: Tomorrow is Wednesday.

MR. YOUNG: Sir, I wonder, the only problem with Mr. Scott's composition is that we are not going to have the privilege of reading that book.

THE COMMISSIONER: We will have to get this thing. You have no copyright, have you?

MR. SCOTT: No. The problem is that we prepared this with the idea that we would make oral submissions from it. That was the intention. I felt that that would take us about a week and that the easiest thing was to simply file a copy of it with you. I understand the problem that causes.

THE COMMISSIONER: How long does it take us to get this thing photostated?

EE 5

MS. CRONK: One or two babies at a time, sir. We can certainly, I will make enquiries, and it will take some time, there is no doubt about it. It is a thick document and it certainly will not be ready, for example, by tomorrow and if we are very lucky, by Thursday.

THE COMMISSIONER: Certainly if we work overtime would it not be ready by tomorrow morning?

MS. CRONK: I doubt that, sir. To put it candidly, there is a great deal of copying involved, but we will certainly do our best to see if we can get copies available as soon as we can. From experience in copying documents of this magnitude, it takes --

THE COMMISSIONER: Could we have a little assistance from the Attorney General? Could this not be done?

MR. TOBIAS: We could probably be able to fry an egg on the photocopier by morning.

MS. CECCHETTO: I will let Mr. Hunt speak on that.

MR. HUNT: We will give whatever assistance we can.

THE COMMISSIONER: I thought it would certainly obviously be easier for Counsel to follow it

EE 6

if everybody has a copy.

MR. SCOTT: I should tell you, frankly, I don't intend to go through it. The purpose of filing it is to avoid going through it.

THE COMMISSIONER: I understand that, but that is perhaps, if you don't intend to go through it, is all the more reason why Counsel should have it. That is all.

Well, I don't know. Why not have some kind of a meeting.

MS. CRONK: Perhaps I can work it out with other Counsel.

THE COMMISSIONER: And do you have one copy, so I can keep one?

MS. CRONK: Yes, sir.

THE COMMISSIONER: You will see what you can do. I would think somehow or another we might manage to have it available by tomorrow morning. I think that is not beyond the realm of possibility.

MR. SCOTT: Could I just bring to the attention of Commission Counsel in copying this, that this was prepared for my personal purposes and under Tab 17 on page 4 there is under note an editorial comment that I would be prepared to make out loud at the Commission in modified form, and I would prefer that

EE 7

that page or that portion of the page was not copied.

THE COMMISSIONER: I missed this editorial comment.

MS. CRONK: Not any more, sir.

THE COMMISSIONER: Well, at any rate, I don't know, but if there is something --

MR. SCOTT: I would like it if Miss Cronk could avoid copying that, because it is the kind of submission that you might make, but it is --

MS. CRONK: I can assure Mr. Scott that Ms. Cronk is going to avoid copying the entire document, but I will ask whoever is doing the copying to avoid --

MR. YOUNG: I knew there was a reason that I asked for the document. Now I know what it is.

THE COMMISSIONER: Well, we will rise until 10 o'clock and then you will have a meeting of Counsel to see what you can do about getting this thing available to them all.

MS. CRONK: Yes, Mr. Commissioner.

THE COMMISSIONER: Yes. Anything else? Miss Kitely?

MS. KITELY: Mr. Commissioner, I wonder if we might canvass the other Counsel who are present to give us some idea. I personally need the

EE 8

information.

THE COMMISSIONER: Let's canvass Mr. Scott before he escapes. Yes, all right. To find out how long they will be?

MS. KITELY: Yes, if it would be possible, sir.

THE COMMISSIONER: How long do you think?

MR. SCOTT: I will be most of the day.

THE COMMISSIONER: I take it, Mr. Ortved, you are going next?

MR. ORTVED: Yes, and I would probably be I would think at the present time about half a day.

THE COMMISSIONER: So you might well take us to, say, Thursday noon?

MR. ORTVED: Yes.

THE COMMISSIONER: And in the ordinary course would you be coming next?

MR. BROWN: In the ordinary course we would be coming next and we would like to go next, but we would not be able to go Thursday afternoon. Mr. Sopinka is before the Supreme Court of Canada and we will be prepared to go Monday morning.

THE COMMISSIONER: All right. How about you? Will we reach you before?

EE 9

MR. STRATHY: Mr. Brown has been good enough to inform me of the problem that Mr. Sopinka has. I would very much like to follow Mr. Sopinka. I don't want to make life difficult, but on the other hand there are reasons that I would like to follow Mr. Sopinka whenever it is he gives his submissions.

THE COMMISSIONER: Do we have a volunteer in case we come up on Thursday afternoon?

MR. TOBIAS: I volunteer to move that we take Thursday afternoon off.

THE COMMISSIONER: That is going to be a serious problem, because I am thinking of Phase II and we really would like to complete this argument next week so that Counsel would have a week to prepare for Phase II before we get into it; that is all.

MR. BROWN: If it is of any assistance, sir, as to the length of time that we would be taking, I doubt that we would be any more than half a day.

THE COMMISSIONER: Yes. Now, Mr. Hunt, you are not prepared to go on or are you prepared to go on?

MR. HUNT: Not before --

THE COMMISSIONER: Not before. Remember if you do go on before you get a chance to come on afterwards. You understand that the reverse order

EE 10

works. You get the final on the way back, but that won't persuade you?

MR. HUNT: I am sorry.

THE COMMISSIONER: All right, I tried. I can't get any parents to go on either? There we are. Maybe we can spend more time than we need in copying this document.

All right, until tomorrow at 10 o'clock.

--- Whereupon the hearing adjourned at 3:30 p.m. until Wednesday, June 13th, 1984 at 10:00 a.m.

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